

ORP-114
(02/02)

ORP - REVIEW COMMENT RECORD (RCR)

1. Date	June 21 2005	2. Review No.	N/A
3. Project No.	200-MW-1		
4. Page	1	of	1

5. Document Number(s)/Title(s)

Data Package SDG WSCF20050940

6. Program/Project/Building Number

GRP & Waste Sites/200-MW-1

7. Reviewer

Bill Thackaberry

8. Organization/Group

Env & Science Assurance (QA)

9. Location/Phone

E6-35

372-0742

17. Comment Submittal Approval

10. Agreement with indicated comment disposition(s).

7/5/05

W. Thackaberry
Reviewer/Point of Contact

11. CLOSED

7/5/05

W. Thackaberry
Reviewer/Point of Contact

Organization Manager (optional)

Date

Requester

Requester

12. Item	13a. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Reviewer Concurrence Required	15. Disposition (Provide justification if NOT accepted). Provide separate attachments if necessary.	16. Status
1	Inorganics - Page 36 is missing (part of the validation checklist).		Closed ✓	✓
2	Radiochemistry - pg 14, It appears that the wrong Pu result was flagged. Pu 238 is supposewd to be flagged. The validator has flagged the Pu 239/240.		Closed ✓	✓
3	Semivolatiles - pg 3, States "Due to LCS recovery outside QC limits (62.6%), all results were qualified as estimates and flagged "J". This should be all phenol results.		Closed ✓	✓
4	Semivolatiles - Page 43 is missing (may only be a title page).		Closed ✓	✓
5	Wet Chemistry - pg 36, checklist item 6 comment says "pH <2X J all" should say "pH >2X J all"		Closed ✓	✓
	PCBs, Volatiles - No Comment			

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REVIEW COMMENT RECORD (RCR)

1. Date 06/27/05	2. Review No.
3. Project No.	
200-MW-1	1 of 2 4. Page

5. Document Number(s)/Title(s) Validation Package for SDG WSCF20050940	6. Program/Project/Building Number Characterization Soil Sampling	7. Reviewer RL Weiss	8. Organization/Group ERC - S&DM	9. Location/Phone Sigma 1 372-9631	
17. Comment Submittal Approval:	10. Agreement with indicated comment disposition(s)		11. Closed		
Organization Manager (Optional)	R. L. Weiss 06/27/2005	Reviewer/Point of Contract	<i>R. L. Weiss</i> 7-6-05 Date		
	Date	R. L. Weiss	<i>R. L. Weiss</i> Author/Originator		
12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Reviewer Concurrence Required	15. Disposition (Provide justification if NOT accepted.)		16. Status
1	Wet Chemistry, Page 10, typo; The pH result for B1C775 should be 9.7.		<i>COR COR</i>		<i>GKA</i>
2	Semivolatile, Page 11, typo; The tributylphosphate result for B1C771 should be 160.		<i>COR X</i>		<i>OK</i>
3	Radiochemistry, Pages 2, 4, 8, & 40; Radiochemistry validation for blank contamination does not assign "U" flags. U-235 results should only be flagged "J". Annotated lab reports are ok.		<i>COR X</i>		<i>OK</i>
4	Volatile; Pages 22 and 23 are reversed.		<i>COR COR</i>		<i>RLW</i>
5	PCB and Inorganic – No Comments				<i>OK RLW</i>

Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: PCB - Data Package No.WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	PCBs by 8082
B1C771	4/28/05	Soil	C	PCBs by 8082
B1C774	4/28/05	Soil	C	PCBs by 8082
B1C775	4/28/05	Soil	C	PCBs by 8082
B1C776	4/28/05	Soil	C	PCBs by 8082
B1C777	4/28/05	Soil	C	PCBs by 8082

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers

Appendix 2. Summary of Data Qualification

Appendix 3. Qualified Data Summary and Annotated Laboratory Reports

Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation

Appendix 5. Data Validation Supporting Documentation

Appendix 6. Additional Documentation Requested by Client

DATA QUALITY OBJECTIVES

- Holding Times/Sample Preservation

Sample data were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: Soil samples must be extracted within 14 days of sample collection and analyzed within 40 days of extraction.

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If holding times are exceeded by less than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detected sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

All holding times were acceptable.

- **Method Blank**

Method blank analyses are performed to determine the extent of laboratory contamination introduced through sampling, sample preparation or analysis. At least one method blank analysis must be conducted for every 20 samples. Method blanks should not contain target compounds at a concentration greater than minimum detectable activity (MDA). If target compounds are present, sample results less than five times the blank concentration are qualified as undetected and flagged "U". If the sample result is less than five times the blank concentration and less than MDA, the result is qualified as undetected and elevated to the MDA.

All method blank target compound results were acceptable.

Field Blanks

No equipment blanks were submitted for analysis.

- **Accuracy**

Matrix Spike/Blank Spike

Matrix spike and blank spike analyses are used to assess the analytical accuracy of the reported data. The matrix spike is used to assess the effect of the matrix on the ability to accurately quantify sample concentrations and is done in duplicate. Matrix spike and blank spike analyses must be within control limits of 50% to 150%. If spike recoveries are outside control limits, detected sample results less than five times the spike concentration are qualified as estimates and flagged "J". Non-detected sample results with spike recoveries outside control limits are qualified as estimates and flagged "UJ". Sample results greater than five times the spike concentration require no qualification.

All matrix spike/blank spike results were acceptable.

Surrogate Recovery

The analysis of surrogate compounds provides a measure of performance for individual samples. Matrix-specific surrogate compound recovery control windows have been established by the laboratory. When a surrogate compound recovery is outside the control window, all positively identified target compounds associated with the unacceptable surrogate recoveries are qualified as estimates and flagged "J". Non-detected compounds with surrogate recoveries less than the lower control limit are qualified as having an estimated detection limit and flagged "UJ". Non-detected compounds with surrogate recoveries above the upper control limit require no qualification.

All surrogate results were acceptable.

- **Precision**

Matrix Spike/Matrix Spike Duplicate Samples

Matrix spike/matrix spike duplicate results provide matrix-specific information on the precision of the method for specific target compound classes. Precision is expressed as the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. For soil samples, results must be within RPD limits of plus/minus 35%. If RPD values are out of specification and the sample concentration is less than five times the spike concentration, all associated detected sample results are qualified as estimates and flagged "J". If RPD values are out of specification and the sample concentration is greater than five times the spike concentration, no qualification is required.

All precision results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Analytical Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQL) to ensure that laboratory detection levels meet the required criteria. All results exceeded the analyte specific RTQL. Under the FHI statement of work, no qualification is required.

- **Completeness**

Data Package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

All results exceeded the analyte specific RTQL. Under the FHI statement of work, no qualification is required.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1
Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validators in compliance with the procedures herein are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

Appendix 2
Summary of Data Qualification

000007

PCB DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS: No qualifiers assigned			

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD	
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Laboratory: WSCF	
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Case:	SDG: WSCF20050940
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Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
Analysis Date		5/13/05		5/13/05		5/13/05		5/13/05		5/13/05		5/13/05	
PCB	RTQL	Result	Q										
Aroclor-1016	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1221	16.5	<110	U	<110	U	<100	U	<100	U	<100	U	<100	U
Aroclor-1232	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1242	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1248	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1254	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1260	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1262	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1268	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U

000010

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
Organic											
W050001286 B1C769	GRP	TRENT	Toluene	SOIL	LA-520-446	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	12874-11-2	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	11104-28-2	SOIL	LA-523-427	U	< 110	ug/kg	1.00	1.1e+02	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	11141-16-5	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	53469-21-9	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	12672-29-8	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	11097-69-1	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	11098-82-5	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	37324-23-5	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	11100-14-4	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	100-02-7	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	108-46-7	SOIL	LA-523-456	U	< 290	ug/kg	1.00	2.9e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	108-95-2	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	120-82-1	SOIL	LA-523-456	U	< 200	ug/kg	1.00	2.0e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	121-14-2	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	129-00-0	SOIL	LA-523-456	U	< 170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	59-50-7	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	621-64-7	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	83-32-9	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	87-88-5	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	95-57-8	SOIL	LA-523-456	U	< 170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	126-73-8	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	75-35-4	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	79-01-6	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	71-43-2	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	108-88-3	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (Inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001286	B1C769	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 44.0	ug/kg	1.00	44	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	20/85	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TPHCASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443 U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427 U	< 110	ug/kg	1.00	1.1e+02	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	106-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 290	ug/kg	1.00	2.9e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 200	ug/kg	1.00	2.0e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 120	ug/kg	1.00	1.2e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 20/85	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	100	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	621-64-7	N-Nitrosodi-n-propylamine	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	87-88-5	Pentachlorophenol	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001287	B1C771	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-456 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	71-38-3	1-Butanol	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	44	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	158-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	158-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U < 4.10e+03	ug/kg	1.00	4.1e+03	06/12/05 04/28/05 04/28/05
W050001288	B1C771	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U < 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPH GASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-445 U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	12674-11-2	Aroclor-1018	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427 U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280	ug/kg	1.00	2.8e+02	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05

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RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
 Project: F04-015: F04-015 Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001288	B1C774	67-88-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05 04/28/05 04/28/05
W050001288	B1C774	158-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	158-58-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05 04/28/05 04/28/05
W050001288	B1C774	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05 04/28/05 04/28/05
W050001288	B1C775	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001289	B1C775	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001289	B1C775	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	53468-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	12672-28-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

000014

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample Receive	
					Method	RQ					
W050001289	B1C776	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 61.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C776	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280	ug/kg	1.00	2.8e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 140	ug/kg	1.00	1.4e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 110	ug/kg	1.00	1.1e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	69-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	< 97.0	ug/kg	1.00	97 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	83-32-8	Acenaphthene	SOIL	LA-523-456 U	< 140	ug/kg	1.00	1.4e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	128-73-8	Tributyl phosphate	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

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PL 6/26/05

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001289	B1C775	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	540-58-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C776	GRP	TRENT	71-55-8	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	74-83-9	Bromoethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 42.0	ug/kg	1.00	42	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	12874-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001290	B1C778	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	12872-28-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	128-00-6	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 98.0	ug/kg	1.00	98	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	128-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	79-01-8	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	108-80-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	76-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (Inorganic)

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001290	B1C776	GRP	TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	156-89-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	210/65	3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11141-18-6	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	12672-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	106-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	88.0	ug/kg	1.00	98	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	83-32-8	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-36-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

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Report WGPP/ver. 1.1

Groundwater Remediation Program

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000019

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Element	Concentration	Comments
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)

Sample Number	Sample Description	Result	Comments
DUPLICATE	W050001268	Pu-238	U9.421E-03

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery

Sample Number	Sample Description	Am-243 Recovery (Percent)	Pu-242 Recovery (Percent)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery

			Tracer Recovery Percent
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample ID	Sample	Element	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury	Am – americium
IC – ion chromatography	Cm - curium
ICP – inductively coupled plasma	Pu – plutonium
ICP/AES – ICP/atomic emission spectroscopy	Np – neptunium
ICP/MS – ICP/mass spectrometry	GEA – gamma energy analysis
Total U – total uranium	H3 – Tritium
AT/TB – total alpha/total beta	Sr – Strontium 89, 90
AEA – Alpha Energy Analysis	WTPH-D – Total Hydrocarbons-Diesel
WTPH-G – Total Hydrocarbons-Gasoline	TSS – Total Suspended Solids

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						5/30/05		F04-015-124	PAGE 1 OF 2			
COLLECTOR Pope/Mister/Tyra/Wiberg		COMPANY CONTACT CS Cerlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN		DATA TURNAROUND					
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		45 Days / <i>45 Days</i>					
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle								
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A								
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Verification W=Water WI=Wipe X=Other		POSSIBLE SAMPLE HAZARDS/ REMARKS N/A <i>Z0050940</i>		PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None				
				TYPE OF CONTAINER	AG	AG	AG	AG	AG	P				
				NO. OF CONTAINER(S)	1	1	1	3	1	1				
				VOLUME	250mL	120mL	250mL	40mL	120mL	500mL				
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 0002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.		MATRIX*		SAMPLE DATE	SAMPLE TIME									
B1C769 1/10/5000 1236		SOIL		7/28/05	0930	/	/	/	/	/				
CHAIN OF POSSESSION						SIGN/ PRINT NAMES						SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS		
RELINQUISHED BY/REMOVED FROM <i>TSA/PF/48744 4-26-05</i>		DATE/TIME <i>14:45</i>		RECEIVED BY/STORED IN <i>TA FRAZER, Jason Fury 4-28-05 14:45</i>		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
LABORATORY SECTION	RECEIVED BY						TITLE		DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY		DATE/TIME					

A-6003-618(03/03)

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-124	PAGE 2 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND		
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A					
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 {Fluoride; Nitrogen-in-Nitrate; Nitrogen-in-Nitrite; Phosphorous in phosphate, Sulfate} Total Cyanide - 9020; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) {Cadmium, Chromium, Copper, Silver} ICP/MS - 200.8 (Add-on) {Lead, Uranium} (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene} (4)Semi-VOA - 8270A (Add-On) {Tributyl phosphate} TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;							

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FD4-015-125		PAGE 1 OF 2					
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock			TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE	8N	DATA TURNAROUND				
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / <u>45 Days</u>				
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		METHOD OF SHIPMENT Government Vehicle								
SHIPPED TO Waste Sampling & Characterization		OPPOSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A										
MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water Wt=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None							
		TYPE OF CONTAINER	BG	BG	BG	aGa ³⁺	BG	P							
		NO. OF CONTAINER(S)	1	1	1	3	1	1							
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL							
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS						
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME												
B1C771	SOIL	9/28/05	0930												
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM <i>TSF/PA/PS/AS</i>	DATE/TIME <i>14:45</i>	RECEIVED BY/STORED IN <i>TA FICAZIER</i>	DATE/TIME <i>14:45</i>	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS											
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME							
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME							

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride-Nitrogen-in-Nitrate, Nitrogen-in-Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOC - B260A (TCL); VOC - B260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene) (4)Semi-VOC - B270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-137	PAGE 1 OF 2				
COLLECTOR Pope/Pister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND <input type="checkbox"/> 45 Days / 45 Days					
SAMPLING LOCATION 216-T-13; 12-13 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015								
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		METHOD OF SHIPMENT Government Vehicle							
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A							
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None				
		TYPE OF CONTAINER		8G	8G	8G	8G*	8G	P				
		NO. OF CONTAINER(S)		1	1	1	3	1	1				
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCMs - 800;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1C774	SOIL	4-27-95	6955	X	X	X	X	X	X				
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM J. Pope/ASR 4-26-95		DATE/TIME 1445		RECEIVED BY/STORED IN V. Carter/Bens 4/27/95		DATE/TIME 4/27/95 14:45							
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME							
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME							
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME							
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME							
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME							
LABORATORY SECTION	RECEIVED BY				TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DISPOSED BY				DATE/TIME				

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cerflock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride-Nitrogen-in-Nitrate, Nitrogen-in-Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9040; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) {Lead, Uranium} (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene) (4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-138	PAGE 1 OF 2				
COLLECTOR Pope/Mister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock 372-9638			TELEPHONE NO.		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND 45 Days / +5 Days			
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015						
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle							
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A							
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None				
		TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P				
		NO. OF CONTAINER(S)		1	1	1	3	1	1				
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1C775	SOIL	11-28-85	(015	X	X	X	X	X	X				
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM <i>Victor P. Sines</i> 4-26-85 1445	DATE/TIME	RECEIVED BY/STORED IN <i>Victor P. Sines</i> 4-26-85 1445	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
LABORATORY SECTION	RECEIVED BY				TITLE			DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DISPOSED BY			DATE/TIME					

Fior Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 14-15 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis (1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, m-Dichlorobenzene, trans-1,2-Dichloroethylene} (4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139	PAGE 1 OF 2					
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE	8N	DATA TURNAROUND					
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days 4-26-65					
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10	METHOD OF SHIPMENT Government Vehicle									
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A								
MATRIX ^a A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None					
TYPE OF CONTAINER		9G	9G	9G	9G*	9G	P							
NO. OF CONTAINER(S)		1	1	1	3	1	1							
VOLUME		250mL	120mL	250mL	40mL	120mL	500mL							
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS					
SAMPLE NO.	MATRIX ^a	SAMPLE DATE	SAMPLE TIME	4-28-85	13:00	T	X	X	X	X				
B1C776	SOIL													
CHAIN OF POSSESSION		SIGN/ PRINT NAMES						SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM JSP/EP/28-A 4-28-85 1445		DATE/TIME		RECEIVED BY/STORED IN Victor Bills 4/28/85		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME								
LABORATORY SECTION	RECEIVED BY						TITLE		DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY		DATE/TIME					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-139	PAGE 2 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND		
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride, Nitrogen-in-Nitrate, Nitrogen-in-Ammonium, Phosphorous in phosphate, Sulfate) (Total Cyanide - 9046; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, m,p,p,p-tetrabromobiphenol, trans-1,2-Dichloroethylene) (4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;							
PMG 2/14/05							

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-140	PAGE 1 OF 2	
COLLECTOR	Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT	TELEPHONE NO. CS Gearlock 372-9638		PROJECT COORDINATOR		PRICE CODE	SN	DATA TURNAROUND	
SAMPLING LOCATION	216-T-13; 24-25 ft	PROJECT DESIGNATION	200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO.	F04-015	AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days	
ICE CHEST NO.		FIELD LOGBOOK NO.	COA	119144ES10	METHOD OF SHIPMENT		Government Vehicle			
SHIPPED TO		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A				
MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER	8G	8G	8G	8G*	8G	P		
		NO. OF CONTAINER(S)	1	1	1	3	1	1		
	VOLUME	250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: BIC/73		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C777	SOIL	4-28-05	1330	X	X	X	X	X		
CHAIN OF POSSESSION										
SIGN/ PRINT NAMES										
RELINQUISHED BY/REMOVED FROM <i>JTAPE 10/28/05 1445</i>	DATE/TIME	RECEIVED BY/STORED IN <i>Victor Binn S 3/28/05 1445</i>	DATE/TIME	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY									
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD									
DISPOSED BY										
DATE/TIME										

A-6003-618(03/03)

COLLECTOR		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 2 OF 2	
Collector	Phone/Fax/Email	Company Contact	Telephone No.	Project Coordinator	Po#-015-140
Pope/Plater/Tyra/Wiberg	CS Corlock		372-9638	Trent, SJ	DATA TURNAROUND
SAMPLING LOCATION	216-T-13; 24-25 R	PROJECT DESIGNATION		SAF NO. Po#-015	45 Days
ICE CHEST NO.		200-AH-1 Characterization Sampling and Analysis - Soil		AIR QUALITY	
FIELD LOGBOOK NO.		COA		METHOD OF SHIPMENT	
SHIPPED TO	Waste Sampling & Characterization	OFFERATE PROPERTY NO.	119144E510	Governor/Mgmt Vehicle	
	N/A			BILL OF LADING/AIR BILL NO.	
SPECIAL INSTRUCTIONS		<i>402-44-48-35</i>			
<p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1) ICP/MS - 300.0 (Froth, Slurry, Filter) Nitrate, Phosphorus in phosphate, Sulfate, Trace-Spectrometer-9045; (2) ICP/MS - 200.8 (TA) Cadmium, Chromium, Copper, Zinc, XCPHMS - 201.0 (Add-on) (Lead, Uranium) (3) VOA - 8260A (TCI); VOA - 8260A (Add-On) (4-Butanol, cis-1,2-Dichloroethylene, Polyethylene, trans-1,2-Dichloroethylene) (4) Semiv-VOA - 8271A (Add-On) (Trityl phosphate) WTPH-G; TPH-D (Total) petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range; (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Strontium-89; Strontium-90 - Total Sr;</p>					

A-503-61803(03)

Appendix 5
Data Validation Supporting Documentation

000039

PCB DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 200-MW-1					S0940
VALIDATOR: TCL	LAB: WSCP			DATE: 6/18/05	
		SDG: S0940			
ANALYSES PERFORMED					
SW-846 8081	SW-846 8081 (TCLP)	SW-846 8082	SW-846 8081 (TCLP)		
SAMPLES/MATRIX					
BIC769 BIC771 BIC774 BIC775					
BIC776 BIC777					
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A
 Comments: _____

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations acceptable? Yes No N/A
 Continuing calibrations acceptable? Yes No N/A
 Standards traceable? Yes No N/A
 Standards expired? Yes No N/A
 Calculation check acceptable? Yes No N/A
 DDT and endrin breakdowns acceptable? Yes No N/A
 Comments: _____

000040

PCB DATA VALIDATION CHECKLIST**3. BLANKS (Levels B, C, D, and E)**

Calibration blanks analyzed? (Levels D, E) Yes No N/A
 Yes No N/A

Calibration blank results acceptable? (Levels D, E) Yes No N/A
 Yes No N/A

Laboratory blanks analyzed? Yes No N/A
 Yes No N/A

Laboratory blank results acceptable? Yes No N/A
 Yes No N/A

Field/trip blanks analyzed? (Levels C, D, E) Yes No N/A
 Yes No N/A

Field/trip blank results acceptable? (Levels C, D, E) Yes No N/A
 Yes No N/A

Transcription/calculation errors? (Levels D, E) Yes No N/A
 Yes No N/A

Comments: NO PK**4. ACCURACY (Levels C, D, and E)**

Surrogates analyzed? Yes No N/A
 Yes No N/A

Surrogate recoveries acceptable? Yes No N/A
 Yes No N/A

Surrogates traceable? (Levels D, E) Yes No N/A
 Yes No N/A

Surrogates expired? (Levels D, E) Yes No N/A
 Yes No N/A

MS/MSD samples analyzed? Yes No N/A
 Yes No N/A

MS/MSD results acceptable? Yes No N/A
 Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 Yes No N/A

MS/MSD standards expired? (Levels D, E) Yes No N/A
 Yes No N/A

LCS/BSS samples analyzed? Yes No N/A
 Yes No N/A

LCS/BSS results acceptable? Yes No N/A
 Yes No N/A

Standards traceable? (Levels D, E) Yes No N/A
 Yes No N/A

Standards expired? (Levels D, E) Yes No N/A
 Yes No N/A

Transcription/calculation errors? (Levels D, E) Yes No N/A
 Yes No N/A

Performance audit sample(s) analyzed? Yes No N/A
 Yes No N/A

Performance audit sample results acceptable? Yes No N/A
 Yes No N/A

Comments: NO PK

PCB DATA VALIDATION CHECKLIST**5. PRECISION (Levels C, D, and E)**Duplicate RPD values acceptable? Yes No N/ADuplicate results acceptable? Yes No N/AMS/MSD standards NIST traceable? (Levels D, E) Yes No N/AMS/MSD standards expired? (Levels D, E) Yes No N/AField duplicate RPD values acceptable? Yes No N/AField split RPD values acceptable? Yes No N/ATranscription/calculation errors? (Levels D, E) Yes No N/AComments: _____

_____**6. SYSTEM PERFORMANCE (Levels D and E)**Chromatographic performance acceptable? Yes No N/APositive results resolved acceptably? Yes No N/AComments: _____

_____**7. HOLDING TIMES (all levels)**Samples properly preserved? Yes No N/ASample holding times acceptable? Yes No N/AComments: _____

_____A-3
000042

PCB DATA VALIDATION CHECKLIST**8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)**

Compound identification acceptable? (Levels D, E) Yes No N/A
 Compound quantitation acceptable? (Levels D, E) Yes No N/A
 Results reported for all requested analyses? Yes No N/A
 Results supported in the raw data? (Levels D, E) Yes No N/A
 Samples properly prepared? (Levels D, E) Yes No N/A
 Detection limits meet RDL? Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Comments: all over

9. SAMPLE CLEANUP (Levels D and E)

Fluorocil ® (or other absorbent) cleanup performed? Yes No N/A
 Lot check performed? Yes No N/A
 Check recoveries acceptable? Yes No N/A
 GPC cleanup performed? Yes No N/A
 GPC check performed? Yes No N/A
 GPC check recoveries acceptable? Yes No N/A
 GPC calibration performed? Yes No N/A
 GPC calibration check performed? Yes No N/A
 GPC calibration check retention times acceptable? Yes No N/A
 Check/calibration materials traceable? Yes No N/A
 Check/calibration materials Expired? Yes No N/A
 Analytical batch QC given similar cleanup? Yes No N/A
 Transcription/Calculation Errors? Yes No N/A
 Comments:

Appendix 6
Additional Documentation Requested by Client

000044

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: PCBs complete list

SAF Number: F04-015

Sample Date: 04/27/05

Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001268

BATCH QC ASSOCIATED WITH SAMPLE

MS	Aroclor-1260	11096-82-5	1045.1	111.000	% Recov	05/13/05	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	980.09	102.000	% Recov	05/13/05	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	888.18	94.200	% Recov	05/13/05	50.000	150.000	
MSD	Aroclor-1260	11096-82-5	1075.7	111.000	% Recov	05/13/05	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	972.47	101.000	% Recov	05/13/05	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	943.22	97.700	% Recov	05/13/05	50.000	150.000	
SPK-RPD	Aroclor-1260	11096-82-5	111.000	0.000	RPD	05/23/05	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	101.000	0.985	RPD	05/23/05	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	97.700	3.648	RPD	05/23/05	0.000	20.000	

Lab ID: W050001286

BATCH QC ASSOCIATED WITH SAMPLE

SURR	Decachlorobiphenyl	2051-24-3	1146.9	108.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1079.6	99.400	% Recov	05/13/05	50.000	150.000	

Lab ID: W050001287

BATCH QC ASSOCIATED WITH SAMPLE

SURR	Decachlorobiphenyl	2051-24-3	1118.7	102.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1042.4	95.300	% Recov	05/13/05	50.000	150.000	

Lab ID: W050001288

BATCH QC ASSOCIATED WITH SAMPLE

SURR	Decachlorobiphenyl	2051-24-3	1050.9	100.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	993.25	94.800	% Recov	05/13/05	50.000	150.000	

000045

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: PCBs complete list

SAF Number: F04-015

Sample Date: 04/28/05

Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001289									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1058.9	104.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	952.31	93.600	% Recov	05/13/05	50.000	150.000	
Lab ID: W050001290									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1050.1	102.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1051.2	102.000	% Recov	05/13/05	50.000	150.000	
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1073.5	105.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	973.05	95.300	% Recov	05/13/05	50.000	150.000	
BATCH QC									
BLANK	Aroclor-1018	12674-11-2	< 50	n/a	UGKG	05/13/05			U
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1232	11141-18-5	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1242	53469-21-9	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1248	12672-29-6	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1254	11097-69-1	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Decachlorobiphenyl	2051-24-3	1041.0	104.000	% Recov	05/13/05	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	949.26	94.900	% Recov	05/13/05	50.000	150.000	
LCS	Aroclor-1260	11096-82-5	1117.1	112.000	% Recov	05/13/05	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	1025.2	103.000	% Recov	05/13/05	50.000	150.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
Matrix: SOLID
Test: PCBs complete list

SAF Number: F04-015
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Tetrachloro-m-xylene	877-09-8	919.52	92.000	% Recov	06/13/05	50.000	150.000	

000047

Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Inorganics - Data Package No. WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C771	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C774	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C775	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C776	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C777	4/28/05	Soil	C	ICP/MS metals by 200.8

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY PARAMETERS

• Holding Times

Analytical holding times for metals are assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: Soil samples must be analyzed within 6 months for ICP metals and 28 days for mercury.

000001



All holding times were acceptable.

- **Preparation (Method) Blanks**

Preparation Blanks

At least one preparation blank, consisting of deionized distilled water processed through each sample preparation and analysis procedure, must be prepared and analyzed with every sample delivery group. In the case of positive blank results, samples with digestate concentrations less than five times the preparation blank value have had their associated values qualified as non-detected and flagged "U". Samples with concentrations of greater than five times the highest blank concentration do not require qualification.

In the case of negative blank results, if the absolute value exceeds the contract required detection limit (CRDL), all nondetects are rejected and flagged "UR" and all detects that are less than ten times the absolute value of the associated preparation blank result are qualified as estimates and flagged "J". If the absolute value of the negative preparation blank is greater than the instrument detection limit (IDL) and less than or equal to the CRDL, all nondetects are qualified as estimates and flagged "UJ" and all detects less than ten times the absolute value of the blank are qualified as estimates and flagged "J". If the sample results are greater than ten times the absolute value of the preparation blank, no qualification is necessary.

All preparation blank results were acceptable.

Field (Equipment) Blank

No field blanks were submitted for analysis.

- **Accuracy**

Matrix Spike & Matrix Spike Duplicate

Matrix spike (MS), matrix spike duplicate (MSD) and laboratory control sample (LCS) analyses are used to assess the analytical accuracy of the reported data. The matrix spike is used to assess effect of the matrix on the ability to accurately quantify sample concentrations. Recoveries must fall within the range of 75% to 125%. Samples with a spike recovery of less than 30% and a sample result below the IDL are rejected and flagged "UR". Samples with a spike recovery of 30% to 74% and a sample result less than the IDL are qualified "UJ". Samples with a spike recovery of greater than 125% or less than 74% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a spike recovery greater than 125% and a sample result less than the IDL, no qualification is required.

000002

All MS/MSD results were acceptable.

Laboratory Control Sample

The LCS is used to monitor the overall performance of all steps in the analysis. Recoveries must fall within the range of 80% to 120% for LCS analysis. Samples with a recovery of less than 50% are rejected and flagged "UR". Samples with a recovery of 50% to 79% and a sample recovery below the IDL are qualified "UJ". Samples with a recovery of greater than 120% or less than 80% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a recovery greater than 120% and a sample result less than the IDL, no qualification is required.

All LCS results were acceptable.

- **Precision**

Laboratory Duplicate Samples

Analytical precision is expressed by the relative percent differences (RPD) between the recoveries of matrix spike and matrix spike duplicate (MSD) analyses performed on a sample in the analytical batch. Precision may alternatively be assessed using unspiked duplicate analyses performed on a sample in the analytical batch. If both sample and replicate activities (concentrations) are greater than five times the CRDL and the RPD is less than +/- 35%, no qualification is required. If either activity (concentration) is less than five times the CRDL, the RPD control limit is less than or equal to two times the CRDL. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects or estimated non-detects.

All laboratory duplicate results were acceptable.

Field Duplicate

No field duplicates were submitted for analysis.

- **Analytical Detection Limits**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. The chromium result in sample B1C777 was reported above the RTQL. Under the FHI statement of work, no qualification is required. All other results met the analyte specific RTQL.

000003

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

The chromium result in sample B1C777 was reported above the RTQL. Under the FHI statement of work, no qualification is required.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1
Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validators in compliance with FHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated concentration is an estimate, but the data are usable for decision-making purposes.
- BJ - Applied to inorganic analyses only. Indicates the analyte concentration was greater than the IDL but less than the CRDL and is considered an estimated value.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

Appendix 2
Summary of Data Qualification

000007

INORGANIC DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS: No qualifiers assigned			

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD											
Laboratory: WSCF											
Case	SDG: WSCF20050940										
Sample Number	B1C769	B1C771	B1C774	B1C775	B1C776	B1C777					
Remarks											
Sample Date	4/28/05	4/28/05	4/28/05	4/28/05	4/28/05	4/28/05					
Inorganics	RTQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cadmium	0.5	0.159		0.246		0.306		0.167		0.141	
Chromium	1	7.26		6.07		6.92		6.45		4.2	<0.0993 U
Lead	10	10.9		8.18		13.4		7.45		3.02	<3.97 U
Uranium	1	0.901		1.03		1.01		0.928		0.544	0.459

000010

WSCF

ANALYTICAL RESULTS REPORT

**Attention:
Project:**

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
Inorganic											
W050001286	B1C789	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	91.2	%	1.00	0.0
W050001286	B1C789	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.52	pH	1.00	0.010
W050001286	B1C789	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	2.70	mg/kg	50.00	2.7
W050001286	B1C789	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	< 2.70	mg/kg	50.00	5.0
W050001286	B1C789	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	0.159	mg/kg	0.93	0.093
W050001286	B1C789	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	7.26	mg/kg	0.93	3.7
W050001286	B1C789	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	10.9	mg/kg	0.93	0.19
W050001287	B1C771	GRP	TRENT	7440-61-1	Uranium	SOIL	LA-505-412	0.901	mg/kg	0.93	0.093
W050001287	B1C771	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	90.7	%	1.00	0.0
W050001287	B1C771	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.57	pH	1.00	0.010
W050001287	B1C771	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	2.65	mg/kg	49.00	2.6
W050001287	B1C771	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	< 2.65	mg/kg	49.00	4.9
W050001287	B1C771	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	0.246	mg/kg	0.95	0.095
W050001287	B1C771	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	6.07	mg/kg	0.95	3.8
W050001287	B1C771	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	8.18	mg/kg	0.95	0.19
W050001288	B1C774	GRP	TRENT	7440-61-1	Uranium	SOIL	LA-505-412	1.03	mg/kg	0.95	0.095
W050001288	B1C774	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	94.4	%	1.00	0.0
W050001288	B1C774	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.58	pH	1.00	0.010
W050001288	B1C774	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	< 2.70	mg/kg	50.00	2.7
W050001288	B1C774	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	< 2.70	mg/kg	50.00	5.0
W050001288	B1C774	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	0.308	mg/kg	0.91	0.091
W050001288	B1C774	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	6.92	mg/kg	0.91	3.6
W050001288	B1C774	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	13.4	mg/kg	0.91	0.18
W050001289	B1C775	GRP	TRENT	7440-61-1	Uranium	SOIL	LA-505-412	1.01	mg/kg	0.91	0.091
W050001289	B1C775	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	98.2	%	1.00	0.0
					pH Measurement	SOIL	LA-212-411	< 0.70	pH	1.00	0.010

MDL=Minimum Detection Limit
RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
 Project: Steve Trent
 F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001289	B1C775	GRP TRENT	PO4-P Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.65	mg/kg	49.00	2.6	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	14000-79-8 Sulfate	SOIL	LA-533-410	B	10.5	mg/kg	49.00	4.3	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	7440-43-9 Cadmium	SOIL	LA-505-412		0.167	mg/kg	0.93	0.093	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	7440-47-3 Chromium	SOIL	LA-505-412		8.45	mg/kg	0.93	3.7	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	7439-92-1 Lead	SOIL	LA-505-412		7.45	mg/kg	0.93	0.19	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	7440-61-1 Uranium	SOIL	LA-505-412		0.928	mg/kg	0.93	0.093	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	TG Total solids	SOIL	LA-510-412		97.0	%	1.00	0.0	05/08/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	pH pH Measurement	SOIL	LA-212-411		9.89	pH	1.00	0.010	05/03/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	PO4-P Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	14000-79-8 Sulfate	SOIL	LA-533-410	B	7.32	mg/kg	50.00	5.0	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	7440-43-9 Cadmium	SOIL	LA-505-412		0.141	mg/kg	0.89	0.089	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	7440-47-3 Chromium	SOIL	LA-505-412		4.22	mg/kg	0.89	3.6	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	7439-92-1 Lead	SOIL	LA-505-412		3.02	mg/kg	0.89	0.18	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	7440-61-1 Uranium	SOIL	LA-505-412		0.544	mg/kg	0.89	0.089	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	TG Total solids	SOIL	LA-510-412		98.0	%	1.00	0.0	05/09/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	pH pH Measurement	SOIL	LA-212-411		9.44	pH	1.00	0.010	05/03/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	14000-79-8 Sulfate	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	7440-43-9 Cadmium	SOIL	LA-533-410	B	25.0	mg/kg	50.00	5.0	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	7440-47-3 Chromium	SOIL	LA-505-412	U	< 0.0993	mg/kg	0.99	0.099	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	7439-92-1 Lead	SOIL	LA-505-412	U	< 3.97	mg/kg	0.99	4.0	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP TRENT	7440-61-1 Uranium	SOIL	LA-505-412		3.11	mg/kg	0.99	0.20	05/10/05 04/28/05 04/28/05
				SOIL	LA-505-412		0.459	mg/kg	0.99	0.099	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit
 RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1
 Groundwater Remediation Program

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000013

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Element	Concentration	Comments
Uranium-234/ Uranium-235				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
Plutonium-238				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample Type	Sample ID	Element	Result	Date
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Tracer	Percent Recovery (%)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery

			Percent Recovery Percent
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury	Am – americium
IC – ion chromatography	Cm - curium
ICP – inductively coupled plasma	Pu – plutonium
ICP/AES – ICP/atomic emission spectroscopy	Np – neptunium
ICP/MS – ICP/mass spectrometry	GEA – gamma energy analysis
Total U – total uranium	H3 – Tritium
AT/TB – total alpha/total beta	Sr – Strontium 89, 90
AEA – Alpha Energy Analysis	WTPH-D – Total Hydrocarbons-Diesel
WTPH-G – Total Hydrocarbons-Gasoline	TSS – Total Suspended Solids

000021

Flor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-124	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND 45 Days / 45 Days			
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A								
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
TYPE OF CONTAINER		4G	8G	8G	8G*	8G	P			
NO. OF CONTAINER(S)		1	1	1	3	1	1			
VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 Z0050940		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE 7/28/5	SAMPLE TIME 0930							
B1C769	1A4500C1236 SOIL									
CHAIN OF POSSESSION		SIGN/ PRINT NAMES						SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS		
RELINQUISHED BY/REMOVED FROM TSAP/14-674 4-28-15	DATE/TIME 14:45	RECEIVED BY/STORED IN TA PRAZ/ER, Tessa Fugjia 4-28-05 14:45	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE						DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY						DATE/TIME		

A-6003-618(03/03)

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COLLECTOR	Fleur Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	PROJECT COORDINATOR	PRICE CODE	SN	PAGE 2 OF 2
POPE/FISHER/TYRA/WILBERD	CS Canlock	COMPANY CONTACT TELEPHONE NO. 372-5638	TRENT, SJ			FO4-015-124
SAMPLING LOCATION 265-T-12; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. FO4-015	AIR QUALITY <input type="checkbox"/>			DATA TURNAROUND 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A	119144ES10	BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. PM6 2/14/05 (1)IC Anions - 300.0 {Fresiley-Nieragusin-Metze, Nitrogen in Nitrite, Phosphorus in phosphate, Sulphate from Oximate - 9949; pH (50) - 9045; (2)ICP/MS - 200.8 (TCL) {Cadmium, Chromium, Copper, Gaseous, Silver} ICP/MS - 200.8 (Add-on) {Lead, Uranium} (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Hexylbenzene trans-1,2-Dichloroethylene} (4)Semi-VOA - 8270A (Add-On) {Thiobutyl phosphate} TPH-Gasoline Range - WTPH-G; TPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Eutronium-152, Europium-154, Europium-155 Isotopic Plutonium; Isotopic Uranium; Amendium-241; Strontium-89,90 - Total Sr;}						

A-5003-6140234(03)

000023

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-125	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock			TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND		
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days / 55 Days		
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10	METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water Wt=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER		aG	aG	aG	aG	aG	P		
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE 9/28/5	SAMPLE TIME 0930								
B1C771	SOIL										
CHAIN OF POSSESSION											
SIGN/ PRINT NAMES											
RELINQUISHED BY/REMOVED FROM <i>JSP/PL/OSR</i> 4-28-95	DATE/TIME 14:45	RECEIVED BY/STORED IN <i>TA FRAZIER (Teresa Frazier)</i> 9/28/95 14:45	DATE/TIME	SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY									DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD									DATE/TIME	

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND	
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 {Fluoride, Nitrogen-in-Nitrate, Nitrogen-in-Nitrite, Phosphorous in phosphate, Sulfate}, Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) {Cadmium, Chromium, Copper, Silver} ICP/MS - 200.8 (Add-on) {Lead, Uranium}; (3)VOC - 8260A (TCL); VOC - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}; (4)Semi-VOC -- 8270A (Add-On) {Tributyl phosphate} TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}; (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;						

PMG- 2/14/05

000025

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-137	PAGE 1 OF 2				
COLLECTOR Pope/Mister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND 45 Days / 45 Days ✓					
SAMPLING LOCATION 216-T-13; 12-13 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015								
ICE CHEST NO.		FIELD LOGBOOK NO. COA 119144ES10		METHOD OF SHIPMENT Government Vehicle		AIR QUALITY <input type="checkbox"/>							
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A					BILL OF LADING/AIR BILL NO. N/A						
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None					
		TYPE OF CONTAINER	gG	gG	gG	gGs*	gG	p					
		NO. OF CONTAINER(S)	1	1	1	3	1	1					
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL					
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 800;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS				
SAMPLE NO. B1C774	MATRIX* SOIL	SAMPLE DATE 4-27-01	SAMPLE TIME 6955	X	X	X	X	X					
CHAIN OF POSSESSION													
SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS											
RELINQUISHED BY/REMOVED FROM J. Pope/AGH 4-26-01		DATE/TIME 1445	RECEIVED BY/STORED IN Victor Fins 4/26/01	DATE/TIME 4/28/01 14:15									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
LABORATORY SECTION		TITLE											
FINAL SAMPLE DISPOSITION		DISPOSED BY											
DATE/TIME													

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(70) 200-17-200-A

COLLECTOR Fluor Hartford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		
PHONE/FAX/TELEPHONE Pope/Pissey/Tyra/Wilberg	COMPANY CONTACT CS Contech	TELEPHONE NO. 372-5638	PROJECT COORDINATOR TRENT, SJ
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-HW-1 Characterization Sampling and Analysis - Soil	PRKE CODE BN	DATA TURNAROUND
ICE CHEST NO.	SAF NO. FO4-015	AIR QUALITY <input type="checkbox"/>	45 Days
SHIPPED TO	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT
Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	119144ES10	Government Vehicle
		BILL OF LADING/AIR BILL NO. N/A	

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

- (1)IC Aqueous - 300.0 {Ferrocene, Nitrogen-14, Methylene-Nitrogen-15, Water, Phosphorous in phosphate, Surface} Total-Electrolyte - 200.0 pH (500) - 5015;
 (2)IC/MS - 200.8 (TAL) {Cadmium, Chromium, Copper, Silver} ICP/MS - 200.8 (add-on) {Lead, Uranium} Total-Electrolyte - 200.8 pH (500) - 5015;
 (3)VQA - 8260A (TCL); VQA - 8260A (add-on) {Butane, 1,2-Dichloroethane, Trans-1,2-Dichloroethylene}
 (4)Sam-VOC - 8270A (add-on) {Thiobutyl proprionate, THF-Gasoline Range - WTPH-G, THF-Diesel Range - WTPH-D} Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - Total Sr;
 (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89/90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-138	PAGE 1 OF 2	
COLLECTOR Pope/Pilster/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND			
SAMPLING LOCATION 216-T-13; 14-15 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		45 Days / 45 Days				
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A						BILL OF LADING/AIR BILL NO. N/A			
MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
TYPE OF CONTAINER		aG	aG	aG	aG*	aG	P			
NO. OF CONTAINER(S)		1	1	1	3	1	1			
VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBS - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO. B1C775	MATRIX* SOIL	SAMPLE DATE 4-28-05	SAMPLE TIME (C18)	X	X	X	X	X		
CHAIN OF POSSESSION										
RELINQUISHED BY/REMOVED FROM <i>Spote/Hanford</i> 4-28-05 1445		DATE/TIME	RECEIVED BY/STORED IN <i>Victor B. Mc S</i> 4/28/05 1445	DATE/TIME	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
LABORATORY SECTION	RECEIVED BY									
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD									
TITLE										DATE/TIME
DISPOSED BY										DATE/TIME

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pilster/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N DATA TURNAROUND AIR QUALITY <input type="checkbox"/> 45 Days
SAMPLING LOCATION 216-T-13; 14-15 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle	
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A	
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 {Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in Phosphate, Sulfate} Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) {Cadmium, Chromium, Copper, Silver} ICP/MS - 200.8 (Add-on) {Lead, Uranium} (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, m,p,p,p-tetrabromoethane, trans-1,2-Dichloroethylene} (4)semi-VOA - 8270A (Add-On) {Tributyl phosphate} TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;				

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A-6003-618(03/03)

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Gearlock			TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N F04-015	DATA TURNAROUND 45 Days / 45-Days 44-24-67	
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO.	AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		BILL OF LADING/AIR BILL NO. N/A			
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A								
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil Se=Sediment T=Tissue V=Vegetation W=Water Wl=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A Radioactive Tie To: B1C782	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P			
NO. OF CONTAINER(S)		1	1	1	3	1	1			
VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE 4-28-05	SAMPLE TIME 1300	T X X X X X						
CHAIN OF POSSESSION SIGN/ PRINT NAMES										
RELINQUISHED BY/REMOVED FROM JS Pope 4-28-05	DATE/TIME 1445	RECEIVED BY/STORED IN 1 Liter Bins 4-28-05	DATE/TIME 1445	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY							DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD							DATE/TIME		

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-13B	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN F04-015	DATA TURNAROUND <input type="checkbox"/> 45 Days	
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-NW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015			
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Phenoxide, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VCA - 8260A (TCL); VCA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, m,p,p,p-tetrabromoethene, trans-1,2-Dichloroethylene) (4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;						

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A-6003-61B(03/03)

COLLECTOR

Fluor Hanford Inc.

Pope/Pisetta/Tyra/Wilberg

SAMPLING LOCATION

216-T-13; 24-25 ft.

ICE CHEST NO.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

COLLECTOR		COMPANY CONTACT		PROJECT DESIGNATION		PROJECT COORDINATOR		PRICING CODE		SAF NO.		DATA TURNAROUND			
		CS Carllock		208-MW-1 Characterization Sampling and Analysis - Soil		TRENT, SJ		SN		FOH-015		45 Days / 45 Days			
				FIELD LOGBOOK NO.				AIR QUALITY							
				CDA 119144ES10											
SHIPPED TO		OPPOSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.											
Waste Sampling & Characterization		N/A		N/A											
MATRIX*	POSSIBLE SAMPLE HAZARDS / REMARKS		PRESERVATION		Cod 4C		Cod 4C		Cod 4C		Cod 4C		None		
N/A	N/A		TYPE OF CONTAINER		6G		6G		6G		6G		P		
			NO. OF CONTAINER(S)		1		1		3		1		1		
			VOLUME		250mL		125mL		250mL		40mL		120mL		
			SAMPLE ANALYSIS		SEE ITEM (1) IN POS - 8007 SPECIAL INSTRUCTIONS		SEE ITEM (2) IN SPECIAL INSTRUCTIONS		SEE ITEM (3) IN SPECIAL INSTRUCTIONS		SEE ITEM (4) IN SPECIAL INSTRUCTIONS		SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
			SPECIAL HANDLING AND/OR STORAGE												
			Radioactive Tie To: BLC783												
SAMPLE NO.	MATRIX*		SAMPLE DATE		SAMPLE TIME								SPECIAL INSTRUCTIONS		
B1C77	SOIL		4-28-05		(330)		X		X		X		X		
CHAIN OF POSSESSION															
RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		RETRIEVED BY/MOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME	
LABORATORY SECTION		RECEIVED BY		DISPOSAL METHOD										DISPOSED BY	
A-603-610(03/03)															
PAGE 1 OF 2															
FD4-015-140															

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COLLECTOR	FILER/HANFORD INC.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						PAGE 2 OF 2
		COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICING CODE	BN	DATA TURNAROUND	
Pope/Prather/Tyra/Wilberg	CS Corlock	372-9638	TRENT, SJ	SAF NO.				
SAMPLING LOCATION	PROJECT DESIGNATION			FU4-015				
216-T-13; 24-25 ft	200-NW-1 Characterization Sampling and Analysis - Soil	ODA	AIR QUALITY			45 Days		
ICE CHEST NO.	FIELD LOGBOOK NO.		METHOD OF SHIPMENT					
SHIPPED TO	OFFSITE PROPERTY NO.	119144ES10	Government Vehicle					
Waste Sampling & Characterization	N/A		BILL OF LADING/AIR BILL NO.					
SPECIAL INSTRUCTIONS						N/A		
** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.								
(1)IC Aroms - 300.0 (Methane, Nitrogen in Nitrate, Phosphorous in phosphate, Sulfuric, Cadmium, Chromium, Copper, Silver, Zinc) ICP/MS - 200.8 (TIA)								
(2)ICP/MS - 200.8 (TIA) (Cadmium, Chromium, Copper, Silver, Zinc) ICP/MS - 200.8 (Add-On) (Lead, Uranium)								
(3)VOA - 8260A (TDS) - VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Hexane, Benzene, Trans-1,2-Dichloroethylene)								
(4)Semi-VOA - 8270A (Add-On) (Thiobutyl phosphate) TPH-Gasoline Range - WTPH-D (Total petroleum hydrocarbons - diesel range; Total petroleum hydrocarbons - kerosene range)								
(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Americium-241; Strontium-89,90 -- Total Sr;								

K-6022-418707(0)

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Appendix 5
Data Validation Supporting Documentation

000033

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 200-MW-1					
VALIDATOR: TLP	LAB: WSCF			DATA PACKAGE: 50940	DATE: 6/18/05
			SDG: 50940		
ANALYSES PERFORMED					
SW-846/ICP	SW-846/GFAA	SW-846/Hg	SW-846 Cyanide	200.8	
SAMPLES/MATRIX					
B1C769 B1C771 B1C774 B1C775 B1C776 B1C777					
801					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A
 Comments: _____

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? Yes No N/A
 Initial calibrations acceptable? Yes No N/A
 ICP interference checks acceptable? Yes No N/A
 ICV and CCV checks performed on all instruments? Yes No N/A
 ICV and CCV checks acceptable? Yes No N/A
 Standards traceable? Yes No N/A
 Standards expired? Yes No N/A
 Calculation check acceptable? Yes No N/A
 Comments: _____

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST**3. BLANKS (Levels B, C, D, and E)**

- ICB and CCB checks performed for all applicable analyses? (Levels D, E)..... Yes No N/A
- ICB and CCB results acceptable? (Levels D, E) Yes No N/A
- Laboratory blanks analyzed? Yes No N/A
- Laboratory blank results acceptable? Yes No N/A
- Field blanks analyzed? (Levels C, D, E) Yes No N/A
- Field blank results acceptable? (Levels C, D, E) Yes No N/A
- Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: _____

no FB

4. ACCURACY (Levels C, D, and E)

- MS/MSD samples analyzed? Yes No N/A
- MS/MSD results acceptable? Yes No N/A
- MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
- MS/MSD standards expired? (Levels D, E) Yes No N/A
- LCS/BSS samples analyzed? Yes No N/A
- LCS/BSS results acceptable? Yes No N/A
- Standards traceable? (Levels D, E)..... Yes No N/A
- Standards expired? (Levels D, E) Yes No N/A
- Transcription/calculation errors? (Levels D, E)..... Yes No N/A
- Performance audit sample(s) analyzed? Yes No N/A
- Performance audit sample results acceptable?..... Yes No N/A

Comments: _____

NODS

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST**5. PRECISION (Levels C, D, and E)**

Duplicate RPD values acceptable? Yes No N/A
 Duplicate results acceptable? Yes No N/A
 MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 MS/MSD standards expired? (Levels D, E) Yes No N/A
 Field duplicate RPD values acceptable? Yes No N/A
 Field split RPD values acceptable? Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

6. ICP QUALITY CONTROL (Levels D and E)

ICP serial dilution samples analyzed? Yes No N/A
 ICP serial dilution %D values acceptable? Yes No N/A
 ICP post digestion spike required? Yes No N/A
 ICP post digestion spike values acceptable? Yes No N/A
 Standards traceable? Yes No N/A
 Standards expired? Yes No N/A
 Transcription/calculation errors? Yes No N/A

Comments: _____

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST**7. FURNACE AA QUALITY CONTROL (Levels D and E)**

Duplicate injections performed as required? Yes No N/A
Duplicate injection %RSD values acceptable? Yes No N/A
Analytical spikes performed as required? Yes No N/A
Analytical spike recoveries acceptable? Yes No N/A
Standards traceable? Yes No N/A
Standards expired? Yes No N/A
MSA performed as required? Yes No N/A
MSA results acceptable? Yes No N/A
Transcription/calculation errors? Yes No N/A
Comments: _____

8. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
Sample holding times acceptable? Yes No N/A
Comments: _____

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST**9. RESULT QUANTITATION AND DETECTION LIMITS (all levels)**

Results reported for all requested analyses? Yes No N/A
Results supported in the raw data? (Levels D, E)..... Yes No N/A
Samples properly prepared? (Levels D, E)..... Yes No N/A
Detection limits meet RDL? Yes No N/A
Transcription/calculation errors? (Levels D, E)..... Yes No N/A
Comments: CR - 777 over

A900038

Appendix 6

Additional Documentation Requested by Client

000039

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: ICP-2008 MS All possible metal

SAF Number: F04-015
Sample Date: 04/28/05
Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W050001286

BATCH QC ASSOCIATED WITH SAMPLE

MS	Cadmium	7440-43-9	186.3407	93.170	% Recov	05/10/05	70.000	130.000	
MS	Chromium	7440-47-3	181.037	90.519	% Recov	05/10/05	70.000	130.000	
MS	Lead	7439-92-1	195.29	97.645	% Recov	05/10/05	70.000	130.000	
MS	Uranium	7440-61-1	198.099	98.049	% Recov	05/10/05	70.000	130.000	
MSD	Cadmium	7440-43-9	198.2407	99.120	% Recov	05/10/06	70.000	130.000	
MSD	Chromium	7440-47-3	187.437	83.719	% Recov	05/10/06	70.000	130.000	
MSD	Lead	7439-92-1	202.59	101.295	% Recov	05/10/06	70.000	130.000	
MSD	Uranium	7440-61-1	202.799	101.400	% Recov	05/10/06	70.000	130.000	
SPK-RPD	Cadmium	7440-43-9	99.120	6.189	RPD	05/10/05	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	93.719	3.474	RPD	05/10/05	0.000	20.000	
SPK-RPD	Lead	7439-92-1	101.295	3.669	RPD	05/10/05	0.000	20.000	
SPK-RPD	Uranium	7440-61-1	101.400	3.360	RPD	05/10/05	0.000	20.000	

BATCH QC

BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L	05/10/05			
BLANK	Chromium	7440-47-3	<4	n/a	ug/L	05/10/05		U	
BLANK	Lead	7439-92-1	<0.2	n/a	ug/L	05/10/05		U	
BLANK	Uranium	7440-61-1	<0.1	n/a	ug/L	05/10/05		U	
LCS	Cadmium	7440-43-9	139.9	109.297	% Recov	05/10/05	88.000	127.000	
LCS	Chromium	7440-47-3	72.59	104.446	% Recov	05/10/05	50.000	126.000	
LCS	Lead	7439-92-1	153.9	108.380	% Recov	05/10/05	87.000	120.000	
LCS	Uranium	7440-61-1	406.7	101.675	% Recov	05/10/05	89.000	107.000	

Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Radiochemistry - Data Package No. WSCF20050940 (50940)

INTRODUCTION

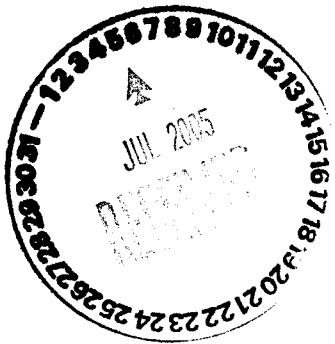
This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	See note 1
B1C771	4/28/05	Soil	C	See note 1
B1C774	4/28/05	Soil	C	See note 1
B1C775	4/28/05	Soil	C	See note 1
B1C776	4/28/05	Soil	C	See note 1
B1C777	4/28/05	Soil	C	See note 1

1 - Strontium-90, gamma spectroscopy and alpha spectroscopy.

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client



000001

DATA QUALITY OBJECTIVES

- **Holding Times**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for radiochemical analysis is 6 months.

All holding times were acceptable.

- **Laboratory (Method) Blanks**

Laboratory Blanks

Blank samples are analyzed to determine if positive results are due to laboratory reagent, sample container, or detector contamination. If blank analysis results indicate the presence of an analyte above the required detection limit (RDL), the following qualifiers are applied: All positive sample results less than five times the highest blank concentration are qualified as estimates and flagged "J"; sample results below the minimum detectable activity (MDA) are qualified as undetected and flagged "U"; sample results above the MDA and greater than five times the highest blank concentration are not qualified.

Due to method blank contamination, all uranium-235 results were qualified as estimates and flagged "J".

All other laboratory blank results were acceptable.

Field Blanks

No field blanks were submitted for analysis.

- **Accuracy**

Accuracy is evaluated by analyzing distilled water or field samples spiked with known amounts of radionuclides. The sample activity as determined by analysis is compared to the known activity to assess accuracy. The acceptable laboratory control sample (LCS) and matrix spike (MS) recovery range is either 65-135% or 70-130%, depending on the analyte. In addition, samples may be spiked with a radiochemical tracer to assist in isolating the radioisotope of interest with the yield of the tracer being used in calculating sample activity. The acceptable range for tracer recovery is 20% to 105%. Spike sample results outside the above ranges result in associated sample results being qualified as estimates, rejected, or not qualified, depending on the activity of the individual sample.

Due to the lack of an LCS analysis, all plutonium-238, uranium-233/234 and uranium-235 results were qualified as estimates and flagged "J".

All other accuracy results were acceptable.

- **Precision**

Analytical precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. Precision may also be assessed using unspiked duplicate sample analyses. If both sample and replicate activities are greater than five times the contract required detection limit (CRDL) and the RPD is less than +/- 35 percent, the results are acceptable. If either activities are less than five times the CRDL, a control limit of less than or equal to two times the CRDL is used for soil samples and less than or equal to the CRDL for water samples. If either the original or replicate value is below the CRDL, the applicable control limits are less than or equal to the CRDL for water samples and less than or equal to two times the CRDL for soil samples. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects or estimated non-detects.

All duplicate results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. All reported laboratory detection levels met the analyte specific RTQL.

- **Completeness**

Data package SDG No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Due to method blank contamination, all uranium-235 results were qualified as estimates and flagged "J". Due to the lack of an LCS analysis, all plutonium-238, uranium-233/234 and uranium-235 results were qualified as estimates and flagged "J". Data flagged "J" is an estimate, but under the FHI validation SOW, the data may be usable for decision-making purposes. All other validated results are considered accurate within the standard error associated with the methods.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1
Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validators in compliance with the FHI statement of work are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected above the minimum detectable activity (MDA) in the sample. The value reported is the sample result corrected for sample dilution and moisture content by the laboratory. The data is usable for decision making purposes.
- UJ - Indicates the compound or analyte was analyzed for and not detected at concentrations above the minimum detectable activity (MDA) in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate, but is usable for decision making purposes.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated concentration is an estimate, but the data are usable for decision-making purposes.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.

Appendix 2
Summary of Data Qualification

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RADIOCHEMISTRY CHEMISTRY DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Uranium-235	J	All	Blank contamination
Uranium-233/234 Uranium-235 Plutonium-238	J	All	No LCS analysis

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

Appendix 3
Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD																				
Laboratory: WSCF																				
Case	SDG: WSCF20050940																			
Sample Number	B1C769																			
Remarks	B1C771																			
Sample Date	4/28/05																			
Radiochemistry	RTQI	Result	Q																	
Americium-241	1	0.0170	U	0.0330	U	0.00940	U	0.0120	U	0.0330	U	0.00330	U							
Cobalt-60	0.05	-0.00670	U	-0.00297	U	0.000685	U	-0.00955	U	0.00284	U	-0.00181	U							
Cesium-137	0.1	0.611		0.548		0.310		0.221		0.00308	U	0.0121								
Europium 152	0.1	0.00630	U	0.0182	U	-0.000565	U	0.0367	U	-0.0137	U	0.00251	U							
Europium 154	0.1	0.0135	U	-0.0259	U	-0.0216	U	-0.0358	U	-0.00635	U	0.00158	U							
Europium 155	0.1	-0.00948	U	0.0868		0.0113	U	0.0507	U	0.00232	U	0.0125	U							
Plutonium-238	1	-0.0120	UJ	0.0170	UJ	-0.00890	UJ	0.00490	UJ	0.0150	UJ	0.0180	UJ							
Plutonium-239/240	1	0.0220		0.0280		0.0550		0.00820	U	-0.00560	U	0.0130								
Strontium-89/90	1	0.520		0.330		-0.100	U	0.0320	U	1.10		0.300	U							
Uranium-233/234	1	0.310	J	0.230	J	0.270	J	0.260	J	0.180	J	0.110	J							
Uranium-235	1	0.0270	J	0.0230	J	0.0300	J	0.0150	J	0.00960	J	0.0200	J							
Uranium-238	1	0.320		0.320		0.320		0.300		0.160		0.150								

000010

* - TDL exceeded

Laboratory applied non-detect qualifiers "U" have been included in this table to minimize potential miss-interpretation of results. All other qualifiers shown were applied during validation.

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Project:** F04-015: F04-015 **Group #:** WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample Receive		
					Method	RQ						
Radiochemistry												
W050001286	B1C769	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471 U	0.0170	pCi/g	1.00	0.041	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.026	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481 U	-8.70e-03	pCi/g	1.00	0.014	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 8.4e-03	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W060001286	B1C769	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481	0.611	pCi/g	1.00	0.014	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Ca-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.10	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481 U	8.30e-03	pCi/g	1.00	0.043	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.030	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W060001286	B1C769	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481 U	0.0135	pCi/g	1.00	0.044	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.030	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481 U	-9.48e-03	pCi/g	1.00	0.059	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.036	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471 U	-0.0120	pCi/g	1.00	0.055	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.030	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	0.0220	pCi/g	1.00	0.016	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+- 0.015	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	0.520	pCi/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+- 0.47	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471 I	0.310	pCi/g	1.00	0.016	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+- 0.093	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471 J	0.0270	pCi/g	1.00	5.2e-03	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.018	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471	0.320	pCi/g	1.00	4.8e-03	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.093	pCi/g	1.00	0.10	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471 U	0.0330	pCi/g	1.00	0.037	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.026	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Group #:** WSCF20050940
Project: F04-015: F04-015

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001287	B1C771	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-2.97e-03	pCi/g	1.00	0.015	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	8.0e-03	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.548	pCi/g	1.00	0.015	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.092	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	0.0182	pCi/g	1.00	0.041	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.041	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	-0.0259	pCi/g	1.00	0.047	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.029	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481		0.0888	pCi/g	1.00	0.055	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Eu-156 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	0.048	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	0.0170	pCi/g	1.00	0.040	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.024	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0280	pCi/g	1.00	4.7e-03	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+-	0.016	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	SR-RAD	Strontrium-89/90	SOIL	LA-508-415		0.330	pCi/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+-	0.43	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J	0.230	pCi/g	1.00	0.013	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+-	0.071	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471	J	0.0230	pCi/g	1.00	5.1e-03	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.014	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.320	pCi/g	1.00	0.013	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.093	pCi/g	1.00	0.10	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	14598-10-2	Americium-241	SOIL	LA-508-471	U	9.40e-03	pCi/g	1.00	0.049	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.028	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	6.85e-04	pCi/g	1.00	0.010	05/05/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+-	6.1e-03	pCi/g	1.00	0.0	05/06/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.310	pCi/g	1.00	0.012	05/05/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample Receive			
					Method	RQ							
W050001288	B1C774	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 0.058	pCi/g	1.00	0.0	05/05/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	-5.65e-04	pCi/g	1.00	0.037	05/05/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 5.8e-03	pCi/g	1.00	0.0	05/05/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	-0.0218	pCi/g	1.00	0.034	05/05/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 0.022	pCi/g	1.00	0.0	05/05/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	14391-16-3	Europium-156	SOIL	LA-508-481	U	0.0113	pCi/g	1.00	0.063	05/05/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Eu-156 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 0.037	pCi/g	1.00	0.0	05/05/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U	-8.90e-03	pCi/g	1.00	0.045	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Err	SOIL	LA-508-471	+ - 0.023	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0550	pCi/g	1.00	4.8e-03	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+ - 0.024	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	U	-0.100	pCi/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+ - 0.41	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J	0.270	pCi/g	1.00	0.018	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+ - 0.081	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471	J	0.0300	pCi/g	1.00	5.0e-03	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+ - 0.017	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05	
W050001288	B1C774	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.320	pCi/g	1.00	4.8e-03	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+ - 0.093	pCi/g	1.00	0.10	05/10/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471	U	0.0120	pCi/g	1.00	0.053	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+ - 0.030	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-8.55e-03	pCi/g	1.00	0.018	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 9.7e-03	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.221	pCi/g	1.00	0.020	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 0.038	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05	
W050001289	B1C775	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	0.0367	pCi/g	1.00	0.049	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+ - 0.041	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05	

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RQ = Result Qualifier

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample Receive		
					Method	RQ						
W050001289	B1C775	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481 U	-0.0368	pCi/g	1.00	0.050	05/02/05 04/28/05 04/28/05
W050001289	B1C776	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.038	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	14391-18-3	Europium-155	SOIL	LA-508-481 U	0.0507	pCi/g	1.00	0.058	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.038	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	13981-18-3	Plutonium-238	SOIL	LA-508-471 U J	4.90e-03	pCi/g	1.00	0.055	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.031	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471 U J	8.20e-03	pCi/g	1.00	0.015	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471 U J	+- 9.8e-03	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415 U	0.0320	pCi/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+- 0.32	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471 J	0.260	pCi/g	1.00	0.019	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+- 0.078	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471 J	0.0150	pCi/g	1.00	0.014	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.012	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471	0.300	pCi/g	1.00	4.7e-03	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.090	pCi/g	1.00	0.10	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471 U	0.0330	pCi/g	1.00	0.045	05/11/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.030	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481 U	2.84e-03	pCi/g	1.00	7.5e-03	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 4.2e-03	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	10046-97-3	Cesium-137	SOIL	LA-508-481 U	3.08e-03	pCi/g	1.00	8.4e-03	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 5.6e-03	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	14683-23-8	Europium-152	SOIL	LA-508-481 U	-0.0137	pCi/g	1.00	0.023	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.015	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481 U	-8.35e-03	pCi/g	1.00	0.023	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.015	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	14391-18-3	Europium-155	SOIL	LA-508-481 U	2.32e-03	pCi/g	1.00	0.035	05/04/05 04/28/05 04/28/05

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RQ=Result Qualifier

DF=Dilution Factor

49 * - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

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Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample Receive			
					Method	RQ							
W050001290	B1C776	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.021	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05	
W050001290	B1C776	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U <i>J</i>	0.0160	pCi/g	1.00	0.052	05/11/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.030	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001290	B1C776	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	U	-5.80e-03	pCi/g	1.00	0.026	05/11/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+- 0.011	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001290	B1C776	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415		1.10	pCi/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+- 0.50	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W050001290	B1C776	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	<i>J</i>	0.180	pCi/g	1.00	0.013	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+- 0.058	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05	
W050001290	B1C776	GRP	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471	<i>J</i>	9.60e-03	pCi/g	1.00	5.2e-03	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+- 8.9e-03	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05	
W050001290	B1C776	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.160	pCi/g	1.00	0.013	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.053	pCi/g	1.00	0.10	05/10/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	14598-10-2	Americium-241	SOIL	LA-508-471	U	3.30e-03	pCi/g	1.00	0.046	05/11/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.026	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-1.81e-03	pCi/g	1.00	8.2e-03	05/04/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 4.8e-03	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.0121	pCi/g	1.00	8.3e-03	05/04/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 7.2e-03	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	2.51e-03	pCi/g	1.00	0.027	05/04/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.018	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	1.58e-03	pCi/g	1.00	0.027	05/04/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.015	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481	U	0.0125	pCi/g	1.00	0.038	05/04/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.023	pCi/g	1.00	0.0	05/04/05 04/28/05 04/28/05	
W060001291	B1C777	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U <i>J</i>	0.0180	pCi/g	1.00	0.057	05/11/05 04/28/05 04/28/05
W060001291	B1C777	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.034	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05	

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent **Group #:** WSCF20050940
Project: F04-015: F04-015

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001291	B1C777	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0130	pCi/g	1.00	4.9e-03 05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+-	0.010	pCi/g	1.00	0.0 05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	U	0.300	pCi/g	1.00	0.30 05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+-	0.39	pCi/g	1.00	0.0 05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J	0.110	pCi/g	1.00	0.022 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+-	0.041	pCi/g	1.00	0.0 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471	5	0.0200	pCi/g	1.00	5.3e-03 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.014	pCi/g	1.00	0.0 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.160	pCi/g	1.00	4.9e-03 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+-	0.051	pCi/g	1.00	0.10 05/10/05 04/28/05 04/28/05

000016

KU/20/05

MDL=Minimum Detection Limit

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Groundwater Remediation Program

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000017

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Element	Conc	QC Status
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample ID	Sample Description	Sample Type	Sample Status	Comments
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Sample Description	Tracer	Percent Recovery
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery

			Percent Recovery Percent
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample ID	Isotope	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury	Am – americium
IC – ion chromatography	Cm - curium
ICP – inductively coupled plasma	Pu – plutonium
ICP/AES – ICP/atomic emission spectroscopy	Np – neptunium
ICP/MS – ICP/mass spectrometry	GEA – gamma energy analysis
Total U – total uranium	H3 – Tritium
AT/TB – total alpha/total beta	Sr – Strontium 89, 90
AEA – Alpha Energy Analysis	WTPH-D – Total Hydrocarbons-Diesel
WTPH-G – Total Hydrocarbons-Gasoline	TSS – Total Suspended Solids

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-124	PAGE 1 OF 2				
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE	8N	DATA TURNAROUND				
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle							
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A							
MATRIX* A=Air D1=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None				
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P				
		NO. OF CONTAINER(S)		1	1	1	3	1	1				
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 Z0050940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8042	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1C769 11050001286	SOIL	4/28/05	0930										
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM TSP/AS/ J. S. 4-26-05	DATE/TIME 14:45	RECEIVED BY/STORED IN TA FRAZIER, <i>[Signature]</i> 4-28-05 14:45	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
LABORATORY SECTION	RECEIVED BY								TITLE	DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD								DISPOSED BY	DATE/TIME			

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Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride, Nitrogen-in-Nitrate, Nitrogen-in-Nitrite, Phosphorous in phosphate, Sulfate); Total Cyanide - 9040; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOC - 8260A (TCL); VOC - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene) (4)Semi-VOC - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-125	PAGE 1 OF 2			
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND <input type="checkbox"/> 45 Days / 45 Days				
SAMPLING LOCATION 216-T-13; 10-11 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015							
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OPPOSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A						
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		BG	BG	BG	BGS*	BG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB6 - B082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C771	SOIL	4/28/05	0930									
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM JSP/PL/John 4/28/05		DATE/TIME 14:45	RECEIVED BY/STORED IN TA FRAZIER (Hand Frazier 4/28/05 14:45)	DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME				

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Antons - 300.0 {Fluoride; Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate} Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) {Cadmium, Chromium, Copper, Silver} ICP/MS - 200.8 (Add-on) {Lead, Uranium} (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, di-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene} (4)Semi-VOA -- 8270A (Add-On) {Tributyl phosphate} TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-137		PAGE 1 OF 2			
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Gearlock 372-9638			TELEPHONE NO.		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days / 45 Days			
SAMPLING LOCATION 216-T-13; 12-13 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015						
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A								
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None				
		TYPE OF CONTAINER		S/G	S/G	S/G	S/G*	S/G	P				
		NO. OF CONTAINER(S)		1	1	1	3	1	1				
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1C774	SOIL	4-29-05	6955	X	X	X	X	X	X				
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM Tara/AS/4 4-28-05	DATE/TIME 1445	RECEIVED BY/STORED IN Victor Farns 4/28/05 14:45											
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN											
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN											
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN											
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN											
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN											
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME					

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F64-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>		45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride, Nitrogen-In-Nitrate, Nitrogen-In-Nitrite, Phosphorous In phosphate, Sulfate) Total-Cyanide - 9040; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver); ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene} (4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;						

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FO4-015-13B		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock 372-9638			TELEPHONE NO. PROJECT COORDINATOR TRENT, SJ			PRICE CODE SAF NO. FO4-015	DATA TURNAROUND <input type="checkbox"/> AIR QUALITY	45 Days / 45 DAYS		
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil										
ICE CHEST NO.		FIELD LOGBOOK NO. 119144ES10			COA			METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A						BILL OF LADING/AIR BILL NO. N/A				
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBa - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C775	SOIL	4-28-65 (CLS)		X	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM Tyra 4-26-65 N44S		DATE/TIME		RECEIVED BY/STORED IN Tutor P. S. 4/28/65 N44S		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME		
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME		

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 14-15 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride, Nitrogen in-Nitrate, Nitrogen in-Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, Trans-1,2-Dichloroethylene} (4)Semi-VOA - 8270A (Add-On) (Triethyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

PMG 2/14/05

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock 372-9638			TELEPHONE NO.		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND	45 Days / 45 Days 4-26-85	
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015					
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		METHOD OF SHIPMENT Government Vehicle					
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A							
MATRIX* A=Air Dl=Drum Liquids Ds=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water Wt=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C776	SOIL	4-28-85	1300	+ X X X X X X								
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM JSPope/V.Tyra 4-28-85		DATE/TIME 1445		RECEIVED BY/STORED IN Victor Bills 4/28/85		DATE/TIME 1445						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME				

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-139	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OPPSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Phosphate, Nitrogen-in-Nitrate, Nitrogen-in-Nitrite, Phosphorous In phosphate, Sulfate) Total Cyanide - 9040; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOC - 8260A (TCL); VOC - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, m,p,p,p-tetrabromobiphenyl, trans-1,2-Dichloroethylene) (4)Semi-VOC -- 8270A (Add-On) (Triethyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

PMG 3/14/05

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-140	PAGE 1 OF 2			
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND				
SAMPLING LOCATION 216-T-13; 24-25 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days / 45 Days					
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10			METHOD OF SHIPMENT Government Vehicle							
SHIPPED TO Waste Sampling & Characterization		OPPOSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A						
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Sorb SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None				
		TYPE OF CONTAINER	8G	8G	8G	8Gs*	8G	P				
		NO. OF CONTAINER(S)	1	1	1	3	1	1				
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL				
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C783		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB6 - 2052;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C777	SOIL	4-28-05	1330	X	X	X	X	X				
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN				DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
4-28-05 1445		Vilmar T. Bins				4-28-05 1445						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN				DATE/TIME						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN				DATE/TIME						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN				DATE/TIME						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN				DATE/TIME						
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME				
A-6003-618(03/03)												

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			P04-015-140	PAGE 2 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND	
SAMPLING LOCATION 216-T-13; 24-25 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. P04-015	AIR QUALITY	45 Days	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Ammonia, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene} (4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;							

A-6003-618(03/03)

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Appendix 5

Data Validation Supporting Documentation

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APPENDIX A
RADIOCHEMICAL DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 200-MW-1					
VALIDATOR: TLT	LAB: WSCF			DATE: 4/18/05	
		SDG: 50940			
ANALYSES PERFORMED					
Gross Alpha/Beta	Strontium-90	Technetium-99	Alpha Spectroscopy	Gamma Spectroscopy	
Total Uranium	Radium-22	Tritium			
SAMPLES/MATRIX					
B1C769 B1C771 B1C774 B1C775					
B1C776 B1C777					
Socl					

1. Completeness N/A

Technical verification forms present? Yes No N/A

Comments: _____

2. Initial Calibration (Levels D, E) N/A

Instruments/detectors calibrated? Yes No N/A

Initial calibration acceptable? Yes No N/A

Standards NIST traceable? Yes No N/A

Standards Expired? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

3. Continuing Calibration (Levels D, E)

N/A

Calibration checked within required frequency? Yes No N/A

Calibration check acceptable? Yes No N/A

Calibration check standards traceable? Yes No N/A

Calibration check standards expired? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

4. Background Counts (Levels D, E)

N/A

Background Counts checked within required frequency? Yes No N/A

Background Counts acceptable? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

5. Blanks (Levels B, C, D, E) N/A

Method blank analyzed within required frequency? Yes No N/A

Method blank results acceptable? Yes No N/A

Analytes detected in method blank? Yes No N/A

Field blank(s) analyzed? Yes N/A

Field blank results acceptable? Yes No N/A

Analytes detected in field blank(s)? Yes No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No N/A

Comments: U ~ 235 - 100% all MB

No FB

6. Laboratory Control Samples or Blank Spike Samples (Levels C, D, E) N/A

LCS /BSS analyzed within required frequency? Yes N/A

LCS/BSS recoveries acceptable? Yes No N/A

LCS/BSS traceable? (Levels D,E) Yes No N/A

LCS/BSS expired? (Levels D,E) Yes No N/A

LCS/BSS levels correct? (Levels D,E) Yes No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No N/A

Comments: no Pu-238, U233/234 or U235 LCS - J all

7. Chemical Carrier Recovery (Levels C, D, E) N/A

Chemical carrier added? Yes No N/A

Chemical recovery acceptable? Yes No N/A

Chemical carrier traceable? (Levels D, E) Yes No N/A

A600040

Chemical carrier expired? (Levels D, E) Yes No N/A

Transcription/Calculation errors? (Levels D, E) Yes No N/A

Comments: _____

8. Tracer Recovery (Levels C, D, E) N/A

Tracer added? Yes No N/A

Tracer recovery acceptable? Yes No N/A

Tracer traceable? (Levels D, E) Yes No N/A

Tracer expired? (Levels D, E) Yes No N/A

Transcription/Calculation errors? (Levels D, E) Yes No N/A

Comments: _____

9. Matrix Spikes (Levels C, D, E) N/A

Matrix spike analyzed? Yes No N/A

Spike recoveries acceptable? Yes No N/A

Spike source traceable? (Levels D, E) Yes No N/A

Spike source expired? Levels D, E) Yes No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No N/A

Comments: _____

10. Duplicates (Levels C, D, E) N/A

Duplicates Analyzed at required frequency? Yes No N/A

RPD Values Acceptable? Yes No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No N/A

Comments: _____

11. Field QC Samples (Levels C, D E) N/A

Field duplicate sample(s) analyzed? Yes No N/A

Field duplicate RPD values acceptable? Yes No N/A

Field split sample(s) analyzed? Yes No N/A

Field split RPD values acceptable? Yes No N/A

Performance audit sample(s) analyzed? Yes No N/A

Performance audit sample results acceptable? Yes No N/A

Comments: _____
No Field QC

12. Holding Times (All levels)

Are sample holding times acceptable? Yes No N/A

Comments: _____

13. Results and Detection Limits (All Levels)..... N/A

Results reported for all required sample analyses?..... Yes No N/A

Results supported in raw data?(Levels D, E)..... Yes No (N/A)

Results Acceptable? (Levels D, E) Yes No N/A

Transcription/Calculation errors? (Levels D, E)..... Yes No N/A

MDA's meet required detection limits? Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: _____

A600043

Appendix 6

Additional Documentation Requested by Client

000044

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: Gamma Energy Analysis-grd H2O

SAF Number: F04-015

Sample Date: 04/28/05

Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001285

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Cobalt-60	10198-40-0	U2.29e-3	n/a	RPD	05/03/05	0.000	20.000	
DUP	Cesium-137	10045-97-3	1.20e+00	0.830	RPD	05/03/05	0.000	20.000	
DUP	Europium-152	14683-23-9	U8.36e-3	n/a	RPD	05/03/05	0.000	20.000	
DUP	Europium-154	15585-10-1	U-1.0e-2	n/a	RPD	05/03/05	0.000	20.000	
DUP	Europium-155	14391-16-3	6.34e-02	n/a	RPD	05/03/05	0.000	20.000	

BATCH QC

BLANK	Cobalt-60	10198-40-0	U-9.8e-4	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-1.5e-3	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U-2.0e-2	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U-4.7e-3	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U-1.8e-3	n/a	pCi/g	05/03/05	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.41e+03	105.251	% Recov	05/03/05	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.94e+03	110.058	% Recov	05/03/05	80.000	120.000	

000045

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Americium by AEA

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001268

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Americium-241	14596-10-2	U1.7e-02	n/a	RPD	05/11/05	0.000	20.000
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BATCH QC

BLANK	Americium-241	14596-10-2	U2.3e-02	n/a	pCi/g	05/11/05	-10.000	1000.000
LCS	Americium-241	14596-10-2	4.8e+01	95.634	% Recov	05/11/05	75.000	125.000

000046

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
Matrix: SOLID
Test: Strontium 89/90

SAF Number: F04-015
Sample Date: 04/28/05
Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001285

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Strontium-89/90	SR-RAD	1.1	34.043	RPD	05/11/05	0.000	20.000	
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BATCH QC

BLANK	Strontium-89/90	10098-97-2	2.6E-02	0.025	pCi/g	05/11/05	-10.000	300.000	
LCS	Strontium-89/90	10098-97-2	70.7	99.437	% Recov	05/11/05	80.000	120.000	

000042

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: Plutonium Isotopes by AEA

SAF Number: F04-015

Sample Date: 04/27/05

Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001268

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Plutonium-238	13881-18-3	U9.4e-03	n/a	RPD	05/11/05	0.000	20.000	
DUP	Pu-239/240 by AEA	PU-239/240	U1.3e-02	n/a	RPD	05/11/05	0.000	20.000	

BATCH QC

BLANK	Plutonium-238	13981-18-3	U-2.4e-2	n/a	PCT	05/11/05	0.000	1000.000	
BLANK	Pu-239/240 by AEA	PU-239/240	U9.1e-03	n/a	pCi/g	05/11/05	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	5.1e+01	103.658	% Recov	05/11/05	75.000	125.000	

000048

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Uranium Isotopes by AEA

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001268

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Uranium-233/234	U-233/234	3.2e-01	0.000	RPD	05/10/05	0.000	20.000	
DUP	U-233/234 AEA Total Cntg Error	E,T,C	29.9	1.031	RPD	05/10/05	0.000	1000.000	
DUP	Uranium-235	15117-96-1	3.4e-02	22.951	RPD	05/10/05	0.000	20.000	
DUP	U-235 by AEA Total Cntg Error	E,T,C	58.8	0.948	RPD	05/10/05	0.000	1000.000	
DUP	Uranium-238	U-238	2.6e-01	17.544	RPD	05/10/05	0.000	20.000	
DUP	U-238 by AEA Total Cntg Error	E,T,C	30.8	1.027	RPD	05/10/05	0.000	1000.000	

BATCH QC

BLANK	Uranium-238	24678-82-8	U8.1e-03	n/a	pCi/g	05/10/05	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	9.2e+01	121.340	% Recov	05/10/05	75.000	125.000	

60000049

Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Semivolatile - Data Package No.WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	See note 1
B1C771	4/28/05	Soil	C	See note 1
B1C774	4/28/05	Soil	C	See note 1
B1C775	4/28/05	Soil	C	See note 1
B1C776	4/28/05	Soil	C	See note 1
B1C777	4/28/05	Soil	C	See note 1

1 - Semivolatiles by 8270, TPH-D (diesel and kerosene) and gasoline range organics by 8015B.

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

000001



DATA QUALITY OBJECTIVES

- Holding Times/Sample Preservation**

Analytical holding times were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirement for semivolatile organics are extraction within 14 days of the date of sample collection and analysis within 40 days from the date of extraction. Method 8015B requires analysis within 14 days.

If holding times are exceeded, but not by greater than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detectable sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

All holding times were met.

- Method Blanks**

Method blank analyses are conducted to determine the extent of laboratory contamination introduced through sampling, sample preparation and analysis. At least one acceptable method blank analysis must be conducted for every 20 samples. No contaminants should be present in the method blank. Analytical results for analytes present in any sample at less than five times the concentration of that analyte found in the associated blank are qualified as non-detects and flagged "U". Common laboratory contaminants present in samples at less than ten times the concentration of that analyte found in the associated blank are qualified as non-detects. If a sample result is less than the CRQL and is less than five times (or less than ten times for lab contaminants) the highest associated blank result, the sample result value is raised to the CRQL level and qualified as undetected "U".

All method blank results were acceptable.

Field Blanks

No field blanks were submitted for analysis.

000002

- **Accuracy**

Matrix Spike/Matrix Spike Duplicate & Blank Spike

Matrix spike/matrix spike duplicate and blank spike sample analyses are used to assess the analytical accuracy of the reported data. Matrix spike/matrix duplicate results are used to assess the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike/matrix spike duplicate analyses are performed in duplicate using five compounds for which percent recoveries must be within a range of 50-150% or within laboratory control limits. If spike recoveries are outside control limits, detected sample results less than five times the spike concentration are qualified as estimates and flagged "J". Undetected sample results with spike recoveries outside control limits are qualified as estimates and flagged "UJ". Sample results greater than five times the spike concentration require no qualification.

Due to an LCS recovery outside QC limits (62.6%), all phenol results were qualified as estimates and flagged "J".

Due to an LCS recovery outside QC limits (59.5%), all pentachlorophenol results were qualified as estimates and flagged "J".

All other matrix spike/matrix spike duplicate and blank spike results were acceptable.

Surrogate Recovery

The analyses of surrogate compounds provide a measure of performance for individual samples. Matrix-specific surrogate compound recovery control windows have been established by the EPA CLP program. If two surrogates of the same class of compounds (base/neutral or acid) are out of control limits, all associated sample results greater than the contract required quantitation limit (CRQL) are qualified as estimates and flagged "J". Sample results less than the CRQL and below the lower control limit are qualified as estimates and flagged "UJ". Sample results less than the CRQL with recoveries above the upper control limit require no qualification. If a surrogate recovery is less than 10%, detects are qualified as estimates and flagged "J" and nondetects are rejected and flagged "UR".

Due to a surrogate recovery outside QC limits (45.2%), the phenol result in sample B1C774 was qualified as an estimate and flagged "J".

All other surrogate results were acceptable.

- **Precision**

Matrix Spike/Matrix Spike Duplicate Samples

Matrix spike (MS)/matrix spike duplicate (MSD) results provide matrix-specific information on the precision of the method for specific target compound classes. Precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. Samples results must be within RPD limits of +/-35%. If RPD values are out of specification and the sample concentration is less than five times the spike concentration, all associated detected sample results are qualified as estimates and flagged "J". If RPD values are out of specification and the sample concentration is greater than five times the spike concentration, no qualification is required.

All MS/MSD RPD results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Analytical Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQL's) to ensure that laboratory detection levels meet the required criteria. All analytes met the RTQL.

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

00004

MINOR DEFICIENCIES

Due to an LCS recovery outside QC limits (62.6%), all phenol results were qualified as estimates and flagged "J". Due to an LCS recovery outside QC limits (59.5%), all pentachlorophenol results were qualified as estimates and flagged "J". Due to a surrogate recovery outside QC limits (45.2%), the phenol result in sample B1C774 was qualified as an estimate and flagged "J". Data flagged "J" is an estimate, but under the FHI validation SOW, the data may be usable for decision-making purposes. All other validated results are considered accurate within the standard error associated with the methods.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1
Glossary of Data Reporting Qualifiers

000006

Qualifiers which may be applied by data validators in compliance with the FHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the same quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (usable for decision-making purposes).

Appendix 2
Summary of Data Qualification

000008

SEMIVOLATILE DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Phenol	J	B1C774	Surrogate recovery
Pentachlorophenol Phenol	J	All	LCS recovery

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000010

Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case:	SDG: WSCF20050940												
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
Analysis Date		5/10/05		5/10/05		5/10/05		5/10/05		5/10/05		5/10/05	
Semivolatile/8015B	RTQL	Result	Q										
4-Nitrophenol		<190	U	<190	U	<180	U	<180	U	<180	U	<180	U
1,4-Dichlorobenzene		<290	U	<290	U	<280	U	<280	U	<270	U	<270	U
Phenol		<150	UJ	<150	UJ	<150	UJ	<140	UJ	<140	UJ	<140	UJ
1,2,4-Trichlorobenzene		<200	U	<200	U	<190	U	<190	U	<190	U	<190	U
2,4-Dinitrotoluene		<120	U	<120	U	<110	U	<110	U	<110	U	<110	U
Pyrene		<170	U	<170	U	<160	U	<160	U	<160	U	<160	U
4-Chloro-3-methylphenol		<100	U	<100	U	<99.0	U	<97.0	U	<96.0	U	<96.0	U
N-Nitroso-di-n-propylamine		<160	U	<160	U	<160	U	<160	U	<150	U	<150	U
Acenaphthene		<150	U	<150	U	<150	U	<140	U	<140	U	<140	U
Pentachlorophenol		<160	UJ	<160	UJ	<150	UJ	<150	UJ	<150	UJ	<150	UJ
2-Chlorophenol		<170	U	<170	U	<160	U	<160	U	<160	U	<160	U
Tributylphosphate	3300	<150	U	<160	U	<150	U	<150	U	<150	U	<150	U
TPH-D	5000	<4100	U	<4100	U	<4000	U	<3900	U	<3900	U	<3900	U
Kerosene	5000	<4100	U	<4100	U	<4000	U	<3900	U	<3900	U	<3900	U
TPH-G (gasoline range organics)	5000	<250	U										

000011

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
	Organic										
W050001286	B1C769	GRP	TRENT	TPH/GASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	13874-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	12672-28-6	Aroclor-1248	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 170	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	75-35-4	1,1-Dichloroethane	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	79-07-6	Trichloroethane	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00

MDL = Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

DF = Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001286 B1C768	GRP	TRENT	78-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	44	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	156-60-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001286 B1C769	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	TPHGANOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	12674-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00	1.1e+02	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	12672-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	ug/kg	1.00	2.9e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	ug/kg	1.00	2.0e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001287 B1C771	GRP	TRENT	87-88-5	Pentachlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015 **Group #:** WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001287	B1C771	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456 U	< 170	ug/kg	1.00	1.7e+02	06/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	128-73-8	Tributyl phosphate	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-05-4	1,1-Dichloroethene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	100-44-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	540-69-0	1,2-Dichloroethene (Total)	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	591-78-8	2-Hexanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	67-84-1	Acetone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	67-68-3	Chloroform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	71-65-6	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
FO4-015: FO4-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001287	B1C771	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 44.0	ug/kg	1.00	44	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	166-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	166-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05	
W050001287	B1C771	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e +03	ug/kg	1.00	4.1e +03	05/12/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TPHKEROSENE	Keroesene	SOIL	NWTPH	U	< 4.10e +03	ug/kg	1.00	4.1e +03	05/12/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e +02	05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	12674-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/19/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e +02	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11097-69-1	Aroclor-1264	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11086-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	37324-23-5	Aroclor-1282	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e +02	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 280	ug/kg	1.00	2.8e +02	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e +02	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e +02	05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF-Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001288	B1C774	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 110	ug/kg	1.00	1.1e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	< 99.0	ug/kg	1.00	99 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-456 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1
Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001288	B1C774	GRP	TRENT	67-66-3	Chloroform	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	74-83-9	Bromomethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	74-87-3	Chloromethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-00-3	Chloroethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-01-4	Vinyl chloride	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-09-2	Methylenechloride	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-15-0	Carbon disulfide	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-25-2	Bromoform	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	78-93-3	2-Butanone	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	71-36-3	1-Butanol	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL LA-523-455	U <	42.0 ug/kg	1.00	42	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	156-68-2	cis-1,2-Dichloroethylene	SOIL LA-523-455	U <	2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL NWTPH	U <	4.00e+03 ug/kg	1.00	4.0e+03	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL NWTPH	U <	4.00e+03 ug/kg	1.00	4.0e+03	05/12/05 04/28/05 04/28/05
W050001288	B1C775	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL LA-523-443	U <	250 ug/kg	1.00	2.5e+02	05/12/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	12674-11-2	Aroclor 1019	SOIL LA-523-427	U <	51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL LA-523-427	U <	100 ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11141-16-8	Aroclor-1232	SOIL LA-523-427	U <	51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL LA-523-427	U <	51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL LA-523-427	U <	51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL LA-523-427	U <	51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL LA-523-427	U <	51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05

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Groundwater Remediation Program

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WSCF

ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001289	B1C775	GRP	TRENT	37824-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11100-14-4	Aroclor-1260	SOIL	LA-523-427 U	< 51.0 ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180 ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	106-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280 ug/kg	1.00	2.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 140 ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190 ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 110 ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 160 ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	69-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	< 97.0 ug/kg	1.00	97	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456 U	< 160 ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	83-32-8	Acenaphthene	SOIL	LA-523-456 U	< 140 ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456 U	< 150 ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456 U	< 160 ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	128-73-8	Tributyl phosphate	SOIL	LA-523-456 U	< 150 ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-35-4	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-01-6	Trichloroethane	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-68-3	Toluene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	76-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10 ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001289	B1C775	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	540-58-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	58-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-55-8	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-08-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-38-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	158-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	158-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	12874-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51.0	05/13/05 04/28/05 04/28/05

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U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

Le 20/05

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001290	B1C776	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427 U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	12872-28-6	Aroclor-1248	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	37324-23-6	Aroclor-1262	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 270	ug/kg	1.00	2.7e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 110	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	59-60-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	< 98.0	ug/kg	1.00	98	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456 U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	87-88-5	Pentachlorophenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	85-67-8	2-Chlorophenol	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	78-01-6	Trichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001290	B1C776	GRP	TRENT	159-66-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	158-58-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03 05/12/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03 05/12/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02 05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	12674-11-2	Aroclor 1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	12672-28-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	37324-23-5	Aroclor-1282	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11100-14-4	Aroclor-1288	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	51 05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	106-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	1.8e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	2.7e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.4e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.9e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.1e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 98.0	ug/kg	1.00	98 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

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U - Analyzed for but not detected above limiting criteria.

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* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
 Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001291	B1C777	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	78-93-3	2-Butanone	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	71-36-3	1-Butanol	SOIL LA-523-455	U < 41.0	ug/kg	1.00	41	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL LA-523-455	U < 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHDIÉSEL	Total Pet. Hydrocarbons Diesel	SOIL NWTPH	U < 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL NWTPH	U < 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05

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MDL=Minimum Detection Limit

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Report WGPP/ver. 1.1

Groundwater Remediation Program

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000023

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Element	Concentration	Comments
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)

DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A
-----------	------------	--------	------------	-----

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Sample	Tracer	Percent Recovery
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery

		Percent	
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery

Sample Name	Lab Sample		
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury	Am – americium
IC – ion chromatography	Cm - curium
ICP – inductively coupled plasma	Pu – plutonium
ICP/AES – ICP/atomic emission spectroscopy	Np – neptunium
ICP/MS – ICP/mass spectrometry	GEA – gamma energy analysis
Total U – total uranium	H3 – Tritium
AT/TB – total alpha/total beta	Sr – Strontium 89, 90
AEA – Alpha Energy Analysis	WTPH-D – Total Hydrocarbons-Diesel
WTPH-G – Total Hydrocarbons-Gasoline	TSS – Total Suspended Solids

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						PAGE 1 OF 2
COLLECTOR Pope/Miser/Timp/Hilberg	COMPANY CONTACT CS Carrick	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 days / 55 days	
SAMPLING LOCATION 216-T-13; 10-14 ft ICE CHEST NO.	PROJECT DESIGNATION 200-HW-1 Characterization Sampling and Analysis - Soil	SAF NO. FO4-015	AIR QUALITY <input type="checkbox"/>			
FIELD LOGBOOK NO.	COA	119144-ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS N/A		PRESERVATION	Cold 4C	Cold 4C	Cold 4C	None
MATRIX* Analyte		TYPE OF CONTAINER	AC	AC	AC	
Dust/Dust		NO. OF CONTAINER(S)	1	1	1	1
Soil		VOLUME	250mL	250mL	40mL	50mL
Liquid		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: BIC770	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
Crude Oil		SAMPLE NO. BIC769	MATRIX SOIL	SAMPLE DATE 7/28/5	SAMPLE TIME 0930	
CHAIN OF POSSESSION						SPECIAL INSTRUCTIONS
RELIQUIDIFIED BY/REMOVED FROM 73-A-1/ G. S. M.	DATE/TIME 4-24-05 14:45	RECEIVED BY/STORED IN A. P. C. / L. M. T. / J. G. T. / J. G. T. / J. G. T.	DATE/TIME 4-28-05 / 4-4-05			
RELIQUIDIFIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELIQUIDIFIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELIQUIDIFIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELIQUIDIFIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
LABORATORY SECTION	DISPOSED BY	TITLE	DATE/TIME			
FINAL SAMPLE DISPOSITION		DISPOSED BY	DATE/TIME			

5/31/05

4-28-05

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

Fiber Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			FH4-015-124	PAGE 2	OF 2
COLLECTOR Pope/Fister/Tyra/Wilberg	COMPANY CONTACT CS Carlcock	TELEPHONE NO. 372-4638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND		
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MM-1 Characterization Sampling and Analysis - Soil		SAF NO. FH4-015	AIR QUALITY <input type="checkbox"/>	45 Days		
INC/CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT				
		119144ES10	Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A					
SPECIAL INSTRUCTIONS							
<p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1)IC-Antons - 300.0 (Fluoride, Nitrate, Nitrite-Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate, Trace Elements - 9045; pH (Soil) - 9045;</p> <p>(2)ICP/MS - 200.8 (Al) (Cadmium, Chromium, Copper, Silver, Zinc); ICP/MS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3)NOA - 8260A (TOC); VOA - 8260A (Add-on) (1-Butanol, cis-1,2-Dichloroethylene, Methylethylketone, trans-1,2-Dichloroethylene)</p> <p>(4)Semi-VOA - 8270A (Add-on) (Inorganic phosphate) 7PH-Gasoline Range - WTPH-G; 7PH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Gadolinium-153) Isotopic Potassium; Isotopic Uranium; Americium-241; Strontium-89, 90 - Total Sr;</p>							

PMF 7/14/98

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

(1)IC-Antons - 300.0 (Fluoride, Nitrate, Nitrite-Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate, Trace Elements - 9045; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (Al) (Cadmium, Chromium, Copper, Silver, Zinc); ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)NOA - 8260A (TOC); VOA - 8260A (Add-on) (1-Butanol, cis-1,2-Dichloroethylene, Methylethylketone, trans-1,2-Dichloroethylene)

(4)Semi-VOA - 8270A (Add-on) (Inorganic phosphate) 7PH-Gasoline Range - WTPH-G; 7PH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Gadolinium-153) Isotopic Potassium; Isotopic Uranium; Americium-241; Strontium-89, 90 - Total Sr;

A-6003-51 (09/93/03)

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			FPA-015-125	PAGE 1	OF 2
COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	SN	DATA TURNAROUND	
Papa/Pfeifer/Tyra/Wilberg	C Caslock	372-5638	TRENT, SJ	AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days - 17 Jr.	47-25-14
SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.					
216-T-13; 10-11 R	200-FW-1 Characterization Sampling and Analysis - Sof	FH-015					
ICE CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT				
		19144ES10	Government Vehicle				
SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.					
Waste Sampling & Characterization	N/A	N/A					
POSSIBLE SAMPLE HAZARDS/ REMARKS		PRESERVATION			Cod 4C	Cod 4C	Cod 4C
MATRIX*	N/A	TYPE OF CONTAINER	SC	SC	SC	SC	None
A=Air		NO. OF CONTAINER(S)	1	1	3	1	1
B=Drum		VOLUME	250mL	250mL	400mL	120mL	500mL
C=Drum		SAMPLE ANALYSIS	SAMPLE (1) IN SPECIAL INSTRUCTIONS	SAMPLE (2) IN SPECIAL INSTRUCTIONS	SAMPLE (3) IN SPECIAL INSTRUCTIONS	SAMPLE (4) IN SPECIAL INSTRUCTIONS	SAMPLE (5) IN SPECIAL INSTRUCTIONS
D=Liquid		SPECIAL HANDLING AND/OR STORAGE	REFLECTIVE TAPE: B1C770				
E=Oil							
F=Sediment							
G=Soil							
H=Sludge							
I=Toxic							
J=Vegetation							
K=Water							
L=Other							
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1C771	SOIL	4/28/95	0930				
SIGN/ PRINT NAMES							
SPECIAL INSTRUCTIONS							
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
150-A-125	4-15-95 14:45	TA FRAZER (Second Stage)	4-18-95 14:45	REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
				REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
				REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
				REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
				REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
				REINQUISITIONED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
LABORATORY SECTION	RECEIVED BY				TITLE		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DATE/TIME		
4-604-SUR99105							

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000033

		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PROJECT COORDINATOR		PAGE 2 OF 2	
COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	TRENT, SJ	PRICE CODE	8N	DATA TURNAROUND	
Rope/Fisher/Tyra/Wilberg	CS Ceatbook	372-9636		SAF NO.			
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		FR-015	AIR QUALITY	<input type="checkbox"/>	45 Days	
SCS CHEST NO.	FIELD LOGBOOK NO.	CDA	119144E510	METHOD OF SHIPMENT			
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A			Government Vehicle			
SPECIAL INSTRUCTIONS	PMG- 2/14/05						
** The laboratory is to report both hexane and diesel range compounds from the WTPH-D analysis.							
(1)IC Arikis - 300.0 (Interferometry-Hexane, Total Nitrogen-in-Nitrate, Total Phosphorus in Phosphate, Surface) [Total Cyanide - 900; pH [Soil] - 9045;							
(2)ICP/MS - 200.8 (TAL) {Cadmium, Chromium, Copper, Silver} [CP/MS - 200.8 (Add-On) (Lead, Uranium)]							
(3)ICOA - 826A (TCL); ICA - 826A (Add-On) (1-Buanol, cis-1,2-Dichloroethylene, trans-1,2-Dichloroethylene)							
(4)Sem-VOA - 8270A (Add-On) (Methyl phosphate) TPH-Gasoline Range - WTPH-D (Total petroleum hydrocarbons - diesel range); TPH-C (Total petroleum hydrocarbons - hexane range)							
(5)IC Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Americium-241; Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89, 90 - Total Sr; Y-88)							

A-503-6-A (REV3)

COLLECTOR	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST								PAGE 1 OF 2
	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	SN	DATA TURNAROUND			
Pope/Mister/Tyra/Wilberg SAMPLE LOCATION 216-T-12; 12-13 ft. TCI CHEST NO.	CS Carrick 372-9538	TRENT, SJ			45 Days / <u>45 Days 14/16/</u>				
SHIPPED TO	PROJECT DESTINATION 200-MH-1 Characterization Sampling and Analysis - Soil	SAF NO. FM-015	AIR QUALITY	<input type="checkbox"/>					
Waste Sampling & Characterization	FIELD LOG BOOK NO. COA 119144ES10	METHOD OF SHIPMENT Government Vehicle							
OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A								
MATRIX* A=Air D=Drum U=duste B=dust/burn S=Solids L=Liquid O=Oil S=Soil Se=Sediment T=Thick V=Vegetation W=Water W+o=Pe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS								
PRESERVATION									
TYPE OF CONTAINER									
NO. OF CONTAINER(S)									
VOLUME									
SAMPLE ANALYSIS									
SEE ITEM (1) IN POA - SEE: SPECIAL INSTRUCTIONS SEE ITEM (2) IN SPECIAL INSTRUCTIONS SEE ITEM (3) IN SPECIAL INSTRUCTIONS SEE ITEM (4) IN SPECIAL INSTRUCTIONS									
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
BIC74	SOIL	4-27-05	6:55:55	X	X	X	X		
CHAIN OF POSSESSION									
REMOVED BY/REMOVED FROM 1/16/05 4/27/05	DATE/TIME REMOVED FROM 1/16/05 4/27/05	REMOVED BY/STORED IN 1/16/05 4/27/05	DATE/TIME REMOVED BY/STORED IN 1/16/05 4/27/05	REMOVED BY/STORED IN 1/16/05 4/27/05					
REQUERIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
REQUERIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
REQUERIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
REQUERIED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
LABORATORY SECTION	RECEIVED BY	TITLE							
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DATE/TIME							
		DATE/TIME							

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A-602-519(03/07)

000035

COLLECTOR		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			PAGE 2 OF 2	
NAME	PHONE NUMBER	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	SN
Papa/Ricer/Tyra/McKey		CS Contact	377-4638	TRENT, SJ		DATA TURNAROUND
SAMPLING LOCATION	216-T-13; 12-13 ft.	PROJECT DESIGNATION	200-HW-1 Characterization Sampling and Analysis - Soil		SAF NO. FO-015	<input type="checkbox"/> AIR QUALITY
INC CHEST NO.		FIELD LOGBOOK NO.	COA	119144ES10	METHOD OF SHIPMENT	45 Days
SHIPPED TO	Waste Sampling & Characterization	OPPOSITE PROPERTY NO.	N/A		Government Vehicle:	
		BILL OF LADING/AIR BILL NO.	N/A			
SPECIAL INSTRUCTIONS		PMC 3/14/05				
<p>** The laboratory is to report both hexane and diesel range components from the WTPH-O analysis.</p> <p>(1)IC Anions - 300.0 (Flame-Absorption Ionometry, Nitrogen-to-Sulfur Phosphorous in phosphate, Sulfate) (test-Ethane-³H-3015) PH (301) - 3015;</p> <p>(2)TOPOHS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICPMS 200.8 (Add-On) (Lead, Uranium)</p> <p>(3)VOC - 8260A (TOC); VOC - 8260A (Add-On) (4-Solvent, cis-1,2-Dichloroethylene, m-xylene, m,p-xylene, p,p'-DDE, 1,2-Dichlorofluoromethane)</p> <p>(5)Gamma Spectroscopy (Thiobutyl phosphate) TMI-Gaoline Range - WTPH-O; TMI-Diesel Range - WTPH-O (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - gasoline range)</p> <p>(6)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Americium-241; Strontium-89,90 - Total Sr; Americium-241; Isotopic Uranium; Isotopic Plutonium)</p>						

A-800-6800000

COLLECTOR	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST										PAGE 1 OF 2																																							
	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR		PHONE CODE	SN	DATA TURNAROUND																																											
SAMPLING LOCATION	Cs Ceilock	372-9638	TRENT, SJ		SAF NO.		45 Days / 49 Days	11/28/64																																										
PROJECT DESIGNATION	200-MW-1 Characterization Sampling and Analysis - San				PH-015	AIR QUALITY	<input type="checkbox"/>																																											
FIELD LOGBOOK NO.			CDA		METHOD OF SHIPMENT																																													
SHIPPED TO	119144ES10		Government Vehicle		BILL OF LADING/AIR BILL NO.																																													
OFFSITE PROPERTY NO.	N/A		N/A		BILL OF LADING/AIR BILL NO.																																													
Waste Sampling & Characterization	N/A																																																	
MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS																																																	
A=Air D=Drum Liquids DS=Drum Soils Liquid Oil S-Oil SE=Sediment Terrope V=Vegetation W=Water WH=Water X=Other	<table border="1"> <thead> <tr> <th>PRESERVATION</th> <th>Coat AC</th> <th>None</th> </tr> </thead> <tbody> <tr> <td>TYPE OF CONTAINER</td> <td>SC</td> <td>SC</td> <td>SC</td> <td>SC</td> <td>SC</td> <td>SC</td> <td>SC</td> <td>SC</td> <td>P</td> </tr> <tr> <td>NO. OF CONTAINER(S)</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>VOLUME</td> <td>250mL</td> <td>120mL</td> <td>250mL</td> <td>40mL</td> <td>120mL</td> <td>40mL</td> <td>120mL</td> <td>40mL</td> <td>500mL</td> </tr> </tbody> </table>										PRESERVATION	Coat AC	None	TYPE OF CONTAINER	SC	P	NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1	VOLUME	250mL	120mL	250mL	40mL	120mL	40mL	120mL	40mL	500mL														
PRESERVATION	Coat AC	Coat AC	Coat AC	Coat AC	Coat AC	Coat AC	Coat AC	Coat AC	None																																									
TYPE OF CONTAINER	SC	SC	SC	SC	SC	SC	SC	SC	P																																									
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1																																									
VOLUME	250mL	120mL	250mL	40mL	120mL	40mL	120mL	40mL	500mL																																									
SPECIAL HANDLING AND/OR STORAGE																																																		
Radioactive To: B1C781																																																		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	SEE ITEM 11 IN FORM - 8001		SEE ITEM 12 IN FORM - 8001		SEE ITEM 13 IN FORM - 8001																																										
B1C775	SOIL	11-28-64	(015)	X	X	X	X	X	X																																									
SPECIAL INSTRUCTIONS																																																		
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS																																																		
CHAIN OF POSSESSION																																																		
RELINQUISHED BY/REMOVED FROM <i>1/44 S</i>	DATE/TIME 11-16-64 14:45	RECEIVED BY/STORED IN <i>1/44 S</i>	DATE/TIME 11-16-64 14:50																																															
RELINQUISHED BY/REMOVED FROM <i>1/44 S</i>	DATE/TIME 11-16-64 14:50	RECEIVED BY/STORED IN <i>1/44 S</i>	DATE/TIME 11-16-64 14:50																																															
RELINQUISHED BY/REMOVED FROM <i>1/44 S</i>	DATE/TIME 11-16-64 14:50	RECEIVED BY/STORED IN <i>1/44 S</i>	DATE/TIME 11-16-64 14:50																																															
RELINQUISHED BY/REMOVED FROM <i>1/44 S</i>	DATE/TIME 11-16-64 14:50	RECEIVED BY/STORED IN <i>1/44 S</i>	DATE/TIME 11-16-64 14:50																																															
RELINQUISHED BY/REMOVED FROM <i>1/44 S</i>	DATE/TIME 11-16-64 14:50	RECEIVED BY/STORED IN <i>1/44 S</i>	DATE/TIME 11-16-64 14:50																																															
LABORATORY SECTION <i>1/44 S</i>	RECEIVED BY 11-16-64 14:50	RECEIVED BY/STORED IN <i>1/44 S</i>	DATE/TIME 11-16-64 14:50																																															
FINAL SAMPLE DISPOSITION <i>A-603-512040</i>	DISPOSAL METHOD	TITLE		DATE/TIME	DATE/TIME																																													

Fior Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 14-15 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA LJ9144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride-Nitrogen-in-Nitrile, Nitrogen-in-Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide = 3010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butane, trans-1,2-Dichloroethylene) (4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;					

PMG 2/14/05

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COLLECTOR		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			PAGE 1 OF 2			
Paper/Paster/Pyra/Wberg	CS Carrick	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	SN		
SAMPLING LOCATION			372-9638	TRENT, SJ		DATA TURNAROUND		
216-T-12; 19-20 ft		PROJECT DESTINATION				45 Days / 15 days		
ICE CHEST NO.		200-MW-1 Characterization Sampling and Analysis - Soil						
FIELD LOGBOOK NO.		FIELD LOGBOOK NO.	COA	SAP NO.	AIR QUALITY			
			119144ES10	R14-015	<input type="checkbox"/>			
SHIPPED TO		METHOD OF SHIPMENT	Government Vehicle					
Where Sampling & Characterization	N/A	BILL OF LADING/AIR BILL NO.	N/A					
OPPOSITE PROPERTY NO.								
N/A								
MATRIX* Air Drum Drum Drum Liquids Liquid Oil Soil Soil-Sediment Tissue Vegetation Water Waste X-Other Radioactive Tie Toc: R1C702	POSSIBLE SAMPLE HAZARDS/ REMARKS		PRESERVATION		Cost AC	Cost AC	Cost AC	None
	N/A		TYPE OF CONTAINER		SC	SG	SG*	SG
			NO. OF CONTAINER(S)		1	1	1	1
			VOLUME		250mL	120mL	40mL	500mL
			SAMPLE ANALYSIS		SEE ITEM (1) IN FORM - 8002 SPECIAL INSTRUCTIONS		SEE ITEM (2) IN FORM - 8002 SPECIAL INSTRUCTIONS	
							SEE ITEM (3) IN FORM - 8002 SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	SPECIAL INSTRUCTIONS				
B1C776	SOIL	4-26-95	1300	X	X	X	X	
CHAIN OF POSSESSION								
RELIQUESSED BY/REMOVED FROM	DATE/TIME	REMITTED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
517-A-12	4-24-95 1445	517-A-12	4-26-95 1445					
RELIQUESSED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME					
LABORATORY SECTION	RECEIVED BY	TITLE						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DATE/TIME						
A-603-035499								

COLLECTOR	CHAIN OF CUSTODY/SAMPLE ANALYSES REQUEST			P04-015-139	PAGE 2	OF 2
Popekster/Tyra/Wilberg	COMPANY CONTACT CS Contact	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND 45 Days	
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESCRIPTION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.	FIELD LOGBOOK NO. COA	119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTP/H-D analysis.	PNG 2/14/05 (1) IC Ankers - 300.0 (Phosphate, Nitrogen-NH ₃ , Nitrogen-NH ₄ , Nitrate, Phosphorous in phosphate, Sulfate) [Lead-Ethane---9045; pH (SM) - 9045; (2) ICOP/NS - 200.8 (Al) (Chromium, Chromium, Copper-Silver) ICP/NS - 200.8 (Add-On) (Lead, Uranium) (3) YOA - B250A (TC) YOA - B250A (Add-On) (1-Guard), di-1,2-Dichloroethylene, n-Butane (4) Samh-YOA - B220A (Add-On) (Thiobutyl phosphate) TPH-Gasoline Range - WTPH-D (Total petroleum hydrocarbons - diesel range; Total petroleum hydrocarbons - diesel range; Strontium-241; Strontium-89; Total Sr; (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-154, Europium-155; Isotopic Potassium; Isotopic Uranium)					

A-500-545000

COLLECTOR		COMPANY CONTACT		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PROJECT COORDINATOR		PAGE 1 OF 2	
Filer Hanford Inc.	Pope/Pister/Tyra/Wilberg	CS Contact	TELEPHONE NO.	372-9638		TRENT, SJ	PRICE CODE	SN	DATA
SAMPLING LOCATION	216-T-13; 24-25 ft	PROJECT DESIGNATION	SAF NO.	40-015		TURNAROUND	AIR QUALITY	<input type="checkbox"/>	45 DAYS /
ICE CHEST NO.		200-MM-1 Characterization Sampling and Analysis- Soil	FIELD LOGBOOK NO.	CDA		45 DAYS /			45 DAYS /
SHIPPED TO	Waste Sampling & Characterization	OPPOSITE PROPERTY NO.	119144ES10	BILL OF LADING/AIR BILL NO.	N/A				
POSSIBLE SAMPLE HAZARDS/ REMARKS		PRESERVATION	Cod 4C	Cod 4C	Cod 4C	Cod 4C	Cod 4C	Cod 4C	
N/A		TYPE OF CONTAINER	4G	IG	IG	IG	IG	IG	
		NO. OF CONTAINER(S)	1	1	1	1	1	1	
		VOLUME	250mL	120mL	250mL	40mL	120mL	50mL	
SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS	SEARCHED IN	INDEXED IN	FILED IN	SEE ITEM 15 IN	SEE ITEM 15 IN	SEE ITEM 15 IN	
Radioactive Tie To: B1C73			SPECIAL INSTRUCTIONS	SPECIAL INSTRUCTIONS	SPECIAL INSTRUCTIONS	SPECIAL INSTRUCTIONS	SPECIAL INSTRUCTIONS	SPECIAL INSTRUCTIONS	
A=Air D=Drum L=Liquid S=Solids O=Oil S=Soil T=Tree Y=Vegetation W=Water Wt=Water X=Other									
SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME					SPECIAL INSTRUCTIONS
B1C77		SOIL	4-28-05	(330)	X	X	X	X	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
CHAIN OF POSSESSION		SIGN/ PRINT NAMES							
REMOVED BY/PROVIDED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	REMOVED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
REMOVED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	REMOVED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
REMOVED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	REMOVED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
REMOVED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	REMOVED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
LABORATORY SECTION		RECEIVED BY							
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD							
A605640(03/01)									

		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 1 OF 2		PAGE 2 OF 2	
COLLECTOR PacifiCorr/PyroWeld	COMPANY CONTACT CS Contact	PROJECT NO. 172-9638	PROJECT COORDINATOR TREAT, S	PRICE CODE SAF NO. PU-015	BN AIR QUALITY	DATA TURNAROUND 45 Days	
SAMPLING LOCATION 216-T-13; 24-25 ft	PROJECT DESIGNATION 200-ANW-1 Characterization Sampling and Analysis Soil						
ICE CRATE NO.	FIELD LOGBOOK NO.	COA 11914HES10	METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OFFEREE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS <i>for 2 - or 40' range</i>		** The laboratory is to report both hexane and diesel range compounds from the WTP-H-D analysis. (1)IC Amons - 300.0 (Molybdate, molybdenum in nitrate, nitrogen in nitrate, Phosphorus in phosphate, Sulphur in sulphate, Zinc, Cadmium, Chromium, Copper, Iron, Lead, Nickel, Zinc, Uranium) (2)ICP-MS - 200.4 (TMA) (Cadmium, Chromium, Copper, Iron, Lead, Nickel, Zinc, Uranium) (3)VOC - 3250A (TOC); VOC - 8150A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, Ethylbenzene, trans-1,2-Dichloroethylene) (4)Sam-POA - 8270A (Add-On) (Thiobis phosphate) THI-Gasoline Range - WTP-H-G; THI-Diesel Range - WTP-H-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - gasoline range, Total petroleum hydrocarbons - hexane range)					

A-400-618023(03)

Appendix 5
Data Validation Supporting Documentation

000043

GC/MS ORGANIC DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT:	260-unw-1			50940	
VALIDATOR:	TLI	LAB: WSCF		DATE: 6/18/03	
			SDG:	50940	
ANALYSES PERFORMED					
SW-846 8260		SW-846 8260 (TCLP)	SW-846 8270	8015	SW-846 8270 (TCLP)
SAMPLES/MATRIX					
B1C769 B1C771 B1C774 B1C775 B1C776 B1C777					
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/AComments: _____

2. INSTRUMENT TUNING AND CALIBRATION (Levels D and E)

GC/MS tuning/performance check acceptable? Yes No N/AInitial calibrations acceptable? Yes No N/AContinuing calibrations acceptable? Yes No N/AStandards traceable? Yes No N/AStandards expired? Yes No N/ACalculation check acceptable? Yes No N/AComments: _____

000044

GC/MS ORGANIC DATA VALIDATION CHECKLIST

3. BLANKS (Levels B, C, D, and E)

- Calibration blanks analyzed? (Levels D, E) Yes No N/A
- Calibration blank results acceptable? (Levels D, E) Yes No N/A
- Laboratory blanks analyzed? Yes No N/A
- Laboratory blank results acceptable? Yes No N/A
- Field/trip blanks analyzed? (Levels C, D, E) Yes No N/A
- Field/trip blank results acceptable? (Levels C, D, E) Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

no FB

4. ACCURACY (Levels C, D, and E)

- Surrogates/system monitoring compounds analyzed? Yes No N/A
- Surrogate/system monitoring compound recoveries acceptable? Yes No N/A
- Surrogates traceable? (Levels D, E) Yes No N/A
- Surrogates expired? (Levels D, E) Yes No N/A
- MS/MSD samples analyzed? Yes No N/A
- MS/MSD results acceptable? Yes No N/A
- MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
- MS/MSD standards? (Levels D, E) Yes No N/A
- LCS/BSS samples analyzed? Yes No N/A
- LCS/BSS results acceptable? Yes No N/A
- Standards traceable? (Levels D, E) Yes No N/A
- Standards expired? (Levels D, E) Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A
- Performance audit sample(s) analyzed? Yes No N/A
- Performance audit sample results acceptable? Yes No N/A

Comments: Surr

-phenol T 74

LCS

phenol T all

LCS

pentachlor-phenol T all

No PAS

GC/MS ORGANIC DATA VALIDATION CHECKLIST**5. PRECISION (Levels C, D, and E)**

MS/MSD samples analyzed? Yes No N/A
 Yes No N/A

MS/MSD RPD values acceptable? Yes No N/A
 Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 Yes No N/A

MS/MSD standards expired? (Levels D, E) Yes No N/A
 Yes No N/A

Field duplicate RPD values acceptable? Yes No N/A
 Yes No N/A

Field split RPD values acceptable? Yes No N/A
 Yes No N/A

Transcription/calculation errors? (Levels D, E) Yes No N/A
 Yes No N/A

Comments:

6. SYSTEM PERFORMANCE (Levels D and E)

Internal standards analyzed? Yes No N/A
 Yes No N/A

Internal standard areas acceptable? Yes No N/A
 Yes No N/A

Internal standard retention times acceptable? Yes No N/A
 Yes No N/A

Standards traceable? Yes No N/A
 Yes No N/A

Standards expired? Yes No N/A
 Yes No N/A

Transcription/calculation errors? Yes No N/A
 Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
 Yes No N/A

Sample holding times acceptable? Yes No N/A
 Yes No N/A

Comments:

GC/MS ORGANIC DATA VALIDATION CHECKLIST**8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)**

Compound identification acceptable? (Levels D, E) Yes No N/A

Compound quantitation acceptable? (Levels D, E) Yes No N/A

Results reported for all requested analyses? Yes No N/A

Results supported in the raw data? (Levels D, E) Yes No N/A

Samples properly prepared? (Levels D, E) Yes No N/A

Laboratory properly identified and coded all TIC? (Levels D, E) Yes No N/A

Detection limits meet RDL? Yes No N/A

Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments:

9. SAMPLE CLEANUP (Levels D and E)

GPC cleanup performed? Yes No N/A

GPC check performed? Yes No N/A

GPC check recoveries acceptable? Yes No N/A

GPC calibration performed? Yes No N/A

GPC calibration check performed? Yes No N/A

GPC calibration check retention times acceptable? Yes No N/A

Check/calibration materials traceable? Yes No N/A

Check/calibration materials Expired? Yes No N/A

Analytical batch QC given similar cleanup? Yes No N/A

Transcription/Calculation Errors? Yes No N/A

Comments:

Appendix 6
Additional Documentation Requested by Client

000048

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
---------	---------	-------	----------	----------	-------	---------------	-------------	-------------	----

Lab ID: W050001286

BATCH QC ASSOCIATED WITH SAMPLE

MS	1,2,4-Trichlorobenzene	120-82-1	1360.2	93.200	% Recov	05/10/05	48.000	107.000	
MS	1,4-Dichlorobenzene	106-48-7	1381.6	94.800	% Recov	05/10/05	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	1258.1	86.200	% Recov	05/10/05	59.000	108.000	
MS	2-Fluorophenol	367-12-4	1486.9	102.000	% Recov	05/10/05	42.000	105.000	
MS	Acenaphthene	83-32-9	1436.7	98.400	% Recov	05/10/05	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	1634.5	74.800	% Recov	05/10/05	61.000	108.000	
MS	2-Chlorophenol	95-57-8	1876.0	90.200	% Recov	05/10/05	66.000	108.000	
MS	N-Nitrosodi-n-dipropylamine	621-84-7	1321.4	90.500	% Recov	05/10/05	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	1519.4	104.000	% Recov	05/10/05	56.000	122.000	
MS	Phenol	108-95-2	1664.5	78.000	% Recov	05/10/05	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	1298.6	89.000	% Recov	05/10/05	64.000	111.000	
MS	4-Nitrophenol	100-02-7	1924.1	87.900	% Recov	05/10/05	32.000	118.000	
MS	Pentachlorophenol	87-88-5	2145.7	98.000	% Recov	05/10/05	82.000	114.000	
MS	Phenol-d5	4165-62-2	1053.4	72.200	% Recov	05/10/05	54.000	120.000	
MS	Pyrene	129-00-0	1367.2	93.700	% Recov	05/10/05	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	1165.2	79.800	% Recov	05/10/05	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	1389.1	95.200	% Recov	05/10/05	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	1371.3	94.000	% Recov	05/10/05	48.000	107.000	
MSD	1,4-Dichlorobenzene	106-48-7	1308.7	89.700	% Recov	05/10/05	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	1142.3	78.300	% Recov	05/10/05	59.000	108.000	
MSD	2-Fluorophenol	367-12-4	1483.2	102.000	% Recov	05/10/05	42.000	105.000	
MSD	Acenaphthene	83-32-9	1420.0	87.300	% Recov	05/10/05	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	1728.4	79.000	% Recov	05/10/05	61.000	108.000	
MSD	2-Chlorophenol	95-57-8	1897.4	88.700	% Recov	05/10/05	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-84-7	1305.2	89.400	% Recov	05/10/05	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	1544.3	106.000	% Recov	05/10/05	56.000	122.000	

000049

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	1474.2	87.300	% Recov	05/10/05	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	1301.0	89.100	% Recov	05/10/05	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	2012.4	91.900	% Recov	05/10/05	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	1959.9	89.500	% Recov	05/10/05	62.000	114.000	
MSD	Phenol-d5	4165-62-2	915.25	62.700	% Recov	05/10/05	54.000	120.000	
MSD	Pyrene	129-00-0	1379.2	94.500	% Recov	05/10/05	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	1193.5	81.800	% Recov	05/10/05	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	1389.2	95.900	% Recov	05/10/05	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	94.000	0.855	RPD	05/10/05	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	108-46-7	89.700	5.317	RPD	05/10/05	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	78.300	9.605	RPD	05/10/05	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	102.000	0.000	RPD	05/10/05	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	97.300	1.124	RPD	05/10/05	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	79.000	5.729	RPD	05/10/05	0.000	20.000	
SPK-RPD	2-Chlorophenol	95-57-8	86.700	3.957	RPD	05/10/05	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylamine	621-84-7	89.400	1.223	RPD	05/10/05	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	106.000	1.905	RPD	05/10/05	0.000	20.000	
SPK-RPD	Phenol	108-95-2	67.300	12.142	RPD	05/10/05	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	89.100	0.112	RPD	05/10/05	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	91.900	4.449	RPD	05/10/05	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	89.500	9.087	RPD	05/10/05	0.000	20.000	
SPK-RPD	Phenol-d5	4165-62-2	62.700	14.085	RPD	05/10/05	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	94.500	0.860	RPD	05/10/05	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	81.800	2.475	RPD	05/10/05	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	95.900	0.733	RPD	05/10/05	0.000	20.000	
SURR	2-Fluorophenol	367-12-4	1393.5	95.500	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	1486.9	102.000	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	1252.4	85.900	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4165-62-2	954.36	85.400	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	1072.8	73.600	% Recov	05/10/05	24.000	122.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1496.8	103.000	% Recov	05/10/05	35.000	150.000	

Lab ID: W050001287

BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol	367-12-4	1405.8	95.800	% Recov	05/10/05	42.000	105.000
SURR	2-Fluorobiphenyl	321-60-8	1415.3	98.500	% Recov	05/10/05	56.000	122.000
SURR	Nitrobenzene-d5	4165-60-0	1176.1	80.200	% Recov	05/10/05	64.000	111.000
SURR	Phenol-d5	4165-62-2	864.41	58.900	% Recov	05/10/05	54.000	120.000
SURR	2,4,6-Tribromophenol	118-79-6	1226.0	83.600	% Recov	05/10/05	24.000	122.000
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1468.1	100.000	% Recov	05/10/05	35.000	150.000

Lab ID: W050001288

BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol	367-12-4	1332.8	94.600	% Recov	05/10/05	42.000	105.000
SURR	2-Fluorobiphenyl	321-60-8	1393.5	98.900	% Recov	05/10/05	56.000	122.000
SURR	Nitrobenzene-d5	4165-60-0	1073.8	76.200	% Recov	05/10/05	64.000	111.000
SURR	Phenol-d5	4165-62-2	637.44	45.200	% Recov	05/10/05	54.000	120.000
SURR	2,4,6-Tribromophenol	118-79-6	1098.2	77.800	% Recov	05/10/05	24.000	122.000
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1362.6	96.700	% Recov	05/10/05	35.000	150.000

Lab ID: W050001289

BATCH QC ASSOCIATED WITH SAMPLE

SURR	2-Fluorophenol	367-12-4	1244.0	89.800	% Recov	05/10/05	42.000	105.000
SURR	2-Fluorobiphenyl	321-60-8	1239.6	89.500	% Recov	05/10/05	56.000	122.000
SURR	Nitrobenzene-d5	4165-60-0	975.81	70.400	% Recov	05/10/05	64.000	111.000
SURR	Phenol-d5	4165-62-2	873.12	63.000	% Recov	05/10/05	54.000	120.000
SURR	2,4,6-Tribromophenol	118-79-6	961.72	69.400	% Recov	05/10/05	24.000	122.000
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1285.8	92.800	% Recov	05/10/05	35.000	150.000

000051

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001290									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1105.4	80.500	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-80-8	1186.8	86.500	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-80-0	938.21	68.400	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4165-62-2	768.40	56.000	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	813.53	59.300	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1207.7	88.000	% Recov	05/10/05	35.000	150.000	
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1438.4	105.000	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-80-8	1355.9	98.900	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-80-0	1104.7	80.600	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4165-62-2	1125.3	82.100	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	1117.2	81.500	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1406.4	103.000	% Recov	05/10/05	35.000	150.000	
BATCH QC									
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 180	n/a	ug/Kg	05/10/05			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 270	n/a	ug/Kg	05/10/05			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 110	n/a	ug/Kg	05/10/05			U
BLANK	2-Fluorophenol	367-12-4	1354.7	102.000	% Recov	05/10/05	42.000	105.000	
BLANK	Acenaphthene	83-32-9	< 140	n/a	ug/Kg	05/10/05			U
BLANK	4-Chloro-3-methylphenol	59-50-7	< 93	n/a	ug/Kg	05/10/05			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	05/10/05			U
BLANK	N-Nitrosodi-n-propylamine	621-64-7	< 150	n/a	ug/Kg	05/10/05			U
BLANK	2-Fluorobiphenyl	321-80-8	1394.4	105.000	% Recov	05/10/05	56.000	122.000	
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg	05/10/05			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrobenzene-d5	4165-60-0	1321.9	99.100	% Recov	05/10/05	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 170	n/a	ug/Kg	05/10/05			U
BLANK	Pentachlorophenol	87-86-5	< 150	n/a	ug/Kg	06/10/05			U
BLANK	Phenol-d5	4165-62-2	929.22	69.700	% Recov	05/10/05	64.000	120.000	
BLANK	Pyrene	129-00-0	< 160	n/a	ug/Kg	05/10/05			U
BLANK	Tributyl phosphate	126-73-8	< 140	n/a	ug/Kg	05/10/05			U
BLANK	2,4,6-Tribromophenol	118-79-6	906.74	68.000	% Recov	05/10/05	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	1286.5	96.400	% Recov	05/10/05	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	1236.8	92.800	% Recov	05/10/05	46.000	107.000	
LCS	1,4-Dichlorobenzene	106-48-7	1232.0	92.400	% Recov	05/10/05	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	1130.4	84.800	% Recov	05/10/05	59.000	106.000	
LCS	2-Fluorophenol	387-12-4	1302.0	97.700	% Recov	05/10/05	50.000	110.000	
LCS	Acenaphthene	83-32-9	1299.5	97.500	% Recov	05/10/05	61.000	116.000	
LCS	4-Chloro-3-methylphenol	59-50-7	1329.6	66.600	% Recov	05/10/05	61.000	106.000	
LCS	2-Chlorophenol	95-57-8	1594.8	79.700	% Recov	05/10/05	66.000	108.000	
LCS	N-Nitrosodi-n-propylamine	621-64-7	1042.6	78.200	% Recov	05/10/05	71.000	114.000	
LCS	2-Fluorobiphenyl	321-60-8	1347.7	101.000	% Recov	05/10/05	58.000	109.000	
LCS	Phenol	108-95-2	1251.8	62.600	% Recov	05/10/05	67.000	106.000	
LCS	Nitrobenzene-d5	4165-60-0	1056.2	79.200	% Recov	05/10/05	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	1393.7	69.700	% Recov	05/10/05	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	1190.9	69.500	% Recov	05/10/05	62.000	114.000	
LCS	Phenol-d5	4165-62-2	828.50	62.100	% Recov	05/10/05	59.000	116.000	
LCS	Pyrene	129-00-0	1248.4	93.600	% Recov	05/10/05	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-6	1021.1	76.600	% Recov	05/10/05	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	1305.0	97.900	% Recov	05/10/05	60.000	120.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F04-015

Sample Date: 04/28/05

Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001285									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	ortho-Terphenyl	Surr	84-15-1	27954	110.000	% Recov	05/12/05	70.000	130.000
MS	Total Pet. Hydrocarbons Diesel		TPHDIESEL	141570	112.000	% Recov	05/12/05	75.000	125.000
MSD	ortho-Terphenyl	Surr	84-15-1	26282	103.000	% Recov	05/12/05	70.000	130.000
MSD	Total Pet. Hydrocarbons Diesel		TPHDIESEL	135570	107.000	% Recov	05/12/05	75.000	125.000
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	103.000	6.573	RPD	05/12/05	0.000	20.000
SPK-RPD	Total Pet. Hydrocarbons Diesel		TPHDIESEL	107.000	4.568	RPD	05/12/05	0.000	20.000
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	25058	92.100	% Recov	05/12/05	70.000	130.000
Lab ID: W050001287									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	21872	79.400	% Recov	05/12/05	70.000	130.000
Lab ID: W050001288									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	24784	93.600	% Recov	05/12/05	70.000	130.000
Lab ID: W050001289									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	24773	95.500	% Recov	05/12/05	70.000	130.000
Lab ID: W050001290									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	21531	83.600	% Recov	05/12/05	70.000	130.000

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surrogate	84-15-1	23674	92.100	% Recov	05/12/05	70.000	130.000
BATCH QC									
BLANK	Kerosene		TPHKEROSENE	< 3800	n/a	ug/Kg	05/12/05		U
BLANK	ortho-Terphenyl	Surrogate	84-15-1	23166	92.700	% Recov	05/12/05	70.000	130.000
BLANK	Total Pet. Hydrocarbons Diesel		TPHDIESEL	< 3800	n/a	ug/Kg	05/12/05		U
LCS	Kerosene		TPHKEROSENE	107760	86.200	% Recov	05/12/05	70.000	130.000
LCS	ortho-Terphenyl	Surrogate	84-15-1	23237	92.900	% Recov	05/12/05	70.000	130.000

000055

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: NWTPH-GX TPH Gasoline Range

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001286

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	RPD	05/11/05	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4370	115.000	% Recov	05/11/05	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3500	92.105	% Recov	05/11/05	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	92.105	22.110	RPD	05/11/05	0.000	20.000	

BATCH QC

BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	05/11/05	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4000	115.942	% Recov	05/11/05	85.000	115.000	

0000056

Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Volatile - Data Package No.WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	Volatile Organics by 8260B
B1C771	4/28/05	Soil	C	Volatile Organics by 8260B
B1C774	4/28/05	Soil	C	Volatile Organics by 8260B
B1C775	4/28/05	Soil	C	Volatile Organics by 8260B
B1C776	4/28/05	Soil	C	Volatile Organics by 8260B
B1C777	4/28/05	Soil	C	Volatile Organics by 8260B

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY OBJECTIVES

• Holding Times/Sample Preservation

Analytical holding times were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are

000001



as follows: Soil samples must be analyzed within 14 days of the date of sample collection.

If holding times are exceeded, but not by greater than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detectable sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

All holding times were acceptable.

- **Blanks**

Method blank analyses are conducted to determine the extent of laboratory contamination introduced through sampling, sample preparation and analysis. At least one acceptable method blank analysis must be conducted for every 20 samples of a given matrix. No contaminants should be present in the method blank.

Analytical results for analytes present in any sample at less than five times the concentration of that analyte found in the associated blank are qualified as non-detects and flagged "U". Common laboratory contaminants present in samples at less than ten times the concentration of that analyte found in the associated blank are qualified as non-detects. If a sample result is less than the project quantitation limit (MDL) and is less than five times (or less than ten times for laboratory contaminants) the highest associated blank result, the sample result value is raised to the MDL, qualified as undetected and flagged "U".

All method blank results were acceptable.

Field Blanks

No field blanks were submitted for analysis.

- **Accuracy**

Matrix Spike/Matrix Spike Duplicate & Blank Spike

Matrix spike/matrix spike duplicate and blank spike analyses are used to assess the analytical accuracy of the reported data. The matrix spike/matrix spike duplicate are used to assess the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike/matrix spike duplicate analyses are performed in duplicate using the target compounds for which percent recoveries must be within 50-150%. If spike recoveries are outside control limits, detected sample results less than five times the spike concentration are qualified as estimates and flagged "J".

000002

Undetected sample results with spike recoveries outside control limits are qualified as estimates and flagged "UJ". Sample results greater than five times the spike concentration require no qualification.

All accuracy and blank spike results were acceptable.

Surrogate Recovery

The analysis of surrogate compounds provides a measure of system performance for individual samples. Matrix-specific surrogate compound recovery control windows have been established by the laboratory program. When a surrogate compound recovery is out of the control window, all positively identified target compounds associated with the unacceptable surrogate recoveries are qualified as estimates and flagged "J". Undetected compounds with surrogate recoveries less than the lower control limit are qualified as having an estimated detection limit and flagged "UJ". Samples with surrogate recoveries less than ten percent are qualified as estimates and flagged "J" for detects, and rejected and flagged "UR" for nondetects. Undetected compounds with surrogate recoveries greater than the upper control limit require no qualification. Surrogates are not required for formaldehyde analysis.

All surrogate recovery results were acceptable.

- **Precision**

Matrix Spike/Matrix Spike Duplicate Samples

Matrix spike/matrix spike duplicate results provide matrix-specific information on the precision of the method for specific target compound classes. Precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. Sample results must be within RPD limits of +/- 35%. If RPD values are out of specification and the sample concentration is less than five times the spike concentration, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If RPD values are out of specification and the sample concentration is greater than five times the spike concentration, no qualification is required.

All MS/MSD RPD results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Detection Limits**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. All analytes met the RTQL.

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

None found.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1

Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validator in compliance with the BHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

Appendix 2
Summary of Data Qualification

000007

VOLATILE ORGANIC DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS: No qualifiers assigned			

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

Appendix 3
Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD											
Laboratory: WSCF											
Case:	SDG: WSCF20050940										
Sample Number		B1C769	B1C771		B1C774	B1C775		B1C776	B1C777		
Remarks											
Sample Date		4/28/05	4/28/05		4/28/05	4/28/05		4/28/05	4/28/05		4/28/05
VOA	RTQL	Result	Q								
1,1-Dichloroethene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Trichloroethene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Benzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Toluene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Chlorobenzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,1-Dichloroethane	10	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Ethylbenzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Styrene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
cis-1,3-Dichloropropene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
trans-1,3-Dichloropropene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,2-Dichloroethane	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
4-Methyl-2-pentanone		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Dibromochloromethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Tetrachloroethene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Xylenes (total)		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,2-Dichloroethene (total)		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Carbon Tetrachloride	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
2-Hexanone		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Acetone	20	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Chloroform	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,1,1-Trichloroethane	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Bromomethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Chloromethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Chloroethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Vinyl Chloride		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Methylene Chloride	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Carbon Disulfide		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Bromoform		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
Dibromochloromethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,2-Dichloropropane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
2-Butanone		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,1,2-Trichloroethane	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1,1,2,2-Tetrachloroethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
1-Butanol		<44.0	U	<44.0	U	<42.0	U	<42.0	U	<41.0	U
n-Butylbenzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
trans-1,2-Dichloroethylene	1	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U
cis-1,2-Dichloroethylene	1	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U

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WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
Organic											
W050001286	B1C769	GRP	TRENT	TPH/GASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	12874-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	12872-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11087-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 54.0	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 170	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00
W050001286	B1C769	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-456	U	< 2.20	ug/kg	1.00

MDL=Minimum Detection Limit

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U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample	Receive		
					Method	RQ							
W050001286	B1C769	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C768	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C768	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	78-87-6	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Result	Unit	DF	MDL	Analyze Sample Receive		
					Method	RQ							
W050001286	B1C769	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 44.0	ug/kg	1.00	44	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	12674-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00	1.1e+02	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	53469-21-0	Aroclor-1242	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	ug/kg	1.00	2.9e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	ug/kg	1.00	2.0e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001287	B1C771	95-57-8	2-Chlorophenol	SOIL	LA-523-455	U	< 170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	126-73-8	Tributyl phosphate	SOIL	LA-523-455	U	< 150	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001287	B1C771	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	100-41-4	Ethybenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	540-69-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	87-88-3	Chloroform	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001287	B1C771	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (Inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WU 120/05

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001287	B1C771	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-456 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-16-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	71-38-3	1-Butanol	SOIL	LA-523-455 U	< 44.0	ug/kg	1.00	44 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03 05/12/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03 05/12/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443 U	< 250	ug/kg	1.00	2.5e+02 05/11/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	12674-11-2	Aroclor-1018	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427 U	< 100	ug/kg	1.00	1.0e+02 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52 05/13/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280	ug/kg	1.00	2.8e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02 05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W050001288	B1C774	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 110	ug/kg	1.00	1.1e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.8e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	59-60-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	< 99.0	ug/kg	1.00	99 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	126-73-8	Tributylphosphate	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	540-59-0	1,2-Dichloroethene (Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1 05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Steve Trent
Project:
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF		Unit	DF	MDL	Analyze Sample	Receive		
					Method	RQ							
W050001288	B1C774	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	76-16-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/06
W050001288	B1C774	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	79-00-5	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	12672-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001289	B1C775	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280	ug/kg	1.00	2.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456 U	< 110	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	69-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456 U	< 57.0	ug/kg	1.00	57	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456 U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456 U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	120-73-0	Tributyl phosphate	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	76-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention: Project:		Steve Trent F04-015: F04-015				Group #:		WSCF20050940				
Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001289	B1C775	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-55-8	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	76-26-2	Bromoform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	76-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 42.0	ug/kg	1.00	42	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TPHDI/SE	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH U	< 3.90e+02	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-455 U	< 350	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	12674-11-2	Aroclor-1018	SOIL	LA-523-455 U	< 1.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

PL 4/20/05

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001290	B1C776	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	37324-23-6	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	128-00-0	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 98.0	ug/kg	1.00	98	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	85-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	128-73-8	Tris(2-butoxyethyl) phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	76-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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Report WGPP/ver. 1.1

Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001290	B1C778	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	58-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	67-68-3	Chloroform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	71-38-3	1-Butanol	SOIL	LA-523-455 U	< 41.0	ug/kg	1.00	41	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1.1

Groundwater Remediation Program

Reul 20/05

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive		
W050001290	B1C776	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHDISEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.00e+03	ug/kg	1.00	3.0e+03	05/12/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	53146-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	12672-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	59-60-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 96.0	ug/kg	1.00	96	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	120-73-6	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	76-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

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Groundwater Remediation Program

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF						Analyze Sample	Receive	
					Method	RQ	Result	Unit	DF	MDL			
W050001291	B1C777	GRP	TRENT	78-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	108-80-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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Groundwater Remediation Program

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive	
W050001291	B1C777	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	78-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 41.0	ug/kg	1.00	41	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	158-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	166-69-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTFH U	< 3.908+03	ug/kg	1.00	3.98+03	05/12/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTFH U	< 3.908+03	ug/kg	1.00	3.98+03	05/12/05 04/28/05 04/28/05

M U 20/05

R C 20/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

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Report WGPP/ver. 1.1

Groundwater Remediation Program

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000025

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Element	Concentration	Comments
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)

Batch QC Data (Results)				
	Sample Number	Element	Conc.	Unit
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery

Sample Number	Sample Description	Element	Percent Recovery
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery

			Percent Recovery (Percent)
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

5/30/05

Flor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-013-124	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyre/Wiberg		COMPANY CONTACT CS Ceckock			TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE	SN	DATA TURNAROUND	
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10	METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air D=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER	aG	aG	aG	aG*	aG	P			
		NO. OF CONTAINER(S)	1	1	1	3	1	1			
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 <i>Z0050940</i>		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8002	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C769	SOIL	<i>7/28/05</i>	<i>0930</i>								
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM <i>TSA/14-05-05</i>	DATE/TIME <i>4-28-05 14:45</i>	RECEIVED BY/STORED IN <i>TA PRAZIER</i>	DATE/TIME <i>4-28-05 14:45</i>								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY								DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD								DISPOSED BY	DATE/TIME	

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FLUOR HANFORD INC.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-124	PAGE 2 OF 2
COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	BN
Pope/Pister/Tyra/Wilberg	CS Carrock	372-9638	TRENT, SJ		DATA TURNAROUND
SAMPLING LOCATION	PROJECT DESIGNATION		SAF NO.		
216-T-13; 10-11 ft	200-MW-1 Characterization Sampling and Analysis - Soil		F04-015		45 DAYS
ICE CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT	AIR QUALITY	<input type="checkbox"/>
		119144-ES10	Government Vehicle		
SHIPPED TO	OPPOSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		
Waste Sampling & Characterization	N/A		N/A		
SPECIAL INSTRUCTIONS					
<p style="text-align: center;"><i>PM6 2/14/05</i></p> <p>** The laboratory is to report both hexenes and diesel range compounds from the WTPH-D analysis.</p> <p>(1) IC Anions - 300.0 (Fluoride-Nitrogen-Methane-Nitrogen in Methane, Phosphorous in phosphate, Sulfate, Total Sulfate, pH (San) - 9045;</p> <p>(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Nickel, Other ICP/MS - 200.8 (Add-On) Lead, Uranium);</p> <p>(3) XOA - 8260A (TCL); YOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, α-Heptanethiophene (Range-1,2-Dichloroethane));</p> <p>(4) Sem-ICA - 8270A (Add-On) (Molybdate phosphate) TPH-Gasoline Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - gasoline range);</p> <p>(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Americium-241; Isotopic Uranium; Isotopic Uranium-241; Strontium-89/90 - Total Sr);</p>					

4-600-6102303

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-125	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN SAF NO. F04-015 AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days / 45 Days			
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil									
ICE CHEST NO.		FIELD LOGBOOK NO. 119144E510		COA		METHOD OF SHIPMENT Government Vehicle					
SHIPPED TO Waste Sampling & Characterization		OPPOSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER		G	G	G	G*	G	P		
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8002	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C771	SOIL	9/28/05	0930	✓	✓	✓	✓	✓	✓		
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM <i>TSAP/AF</i> 14-28-05	DATE/TIME 14:45	RECEIVED BY/STORED IN <i>TA FRAZIER (Alfred Frazier</i> 14-28-05 14:45	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY								TITLE	DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD								DISPOSED BY	DATE/TIME	

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			P04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9636	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N DATA TURNAROUND	AIR QUALITY <input type="checkbox"/> 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Nitrate, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOC - 8260A (TCL); VOC - 8260A (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Octane, trans-1,2-Dichloroethylene} (4)Semi-VOC -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

PMG 3/14/05

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-137	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Gearlock 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND			
SAMPLING LOCATION 216-T-13; 12-13 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015				AIR QUALITY <input type="checkbox"/>	45 Days / 45 Days	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle					
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water W1=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
TYPE OF CONTAINER		8G	8G	8G	8G*	8G	P				
NO. OF CONTAINER(S)		1	1	1	3	1	1				
VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8000;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C774	SOIL	4-20-05	6955	X	X	X	X	X			
CHAIN OF POSSESSION											
RELINQUISHED BY/REMOVED FROM J. Pope/4/18/05 4-20-05		DATE/TIME 1445	RECEIVED BY/STORED IN Victor Pains/4/20/05 14:45		DATE/TIME	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME			

COLLECTOR Pope/Pfister/Tyra/Wilcock		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			PAGE 2 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wilcock	COMPANY CONTACT CS Canlock	COMPANY CONTACT TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRATE CODE BN	DATA TURNOVER	
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - SoI		SAF NO. FR4-015	AIR QUALITY <input type="checkbox"/>	45 Days	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS						
<p><i>PMG 2/14/05</i></p> <p>** The laboratory is to report both aromatic and diesel range compounds from the WTPH-D analysis.</p> <p>(1)C Alkenes - 300.0 Fatty acids-Nitrogen-to-Alkane-Alkene-Pheophytin, Phosphorus in phosphate, Sulfate] [Total-Eyanide->98.8% pH (SO₄) - 9045;</p> <p>(2)ICP/MS - 200.8 (TAL) Cadmium, Chromium, Copper-Silver ICP/MS 200.8 (Add-On) [Lead, Uranium];</p> <p>(3)VOC - 8260A (TCL); VOC - 8260A (TCL); ds-1,2-Dichloroethylene, n-Hexylbenzene, Trans-1,2-Dichlorobutenes)</p> <p>(4)Semi-VOC - 8270A (Add-On) [Thiobutyl phosphate] [THI-G; WTPH-D Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range}]</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-56, Europium-152, Europium-154, Americium-241; Strontium-89,90 - Total Sr;</p>						

A-500-6104(03)

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-138	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Cearlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE	8N	DATA TURNAROUND	
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 DAYS	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510	METHOD OF SHIPMENT Government Vehicle					
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water Wt=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Note		
		TYPE OF CONTAINER	gG	gG	gG	gG*	gG	P		
		NO. OF CONTAINER(S)	1	1	1	3	1	1		
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8002	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C775	SOIL	LI-28-65	(015	X	X	X	X	X		
CHAIN OF POSSESSION										
RELINQUISHED BY/REMOVED FROM <i>Fluor Hanford</i> 4-28-05 1445		DATE/TIME	RECEIVED BY/STORED IN <i>Fluor Hanford</i> 4-28-05 1445		DATE/TIME	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION	RECEIVED BY				TITLE	DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DISPOSED BY	DATE/TIME				
A-6003-618(03/03)										

COLLECTOR		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 2 OF 2	
Paper/Picker/Tyre/Wiley No.	COMPANY CONTACT CS contact	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SAF NO. FO4-015	DATA TURNAROUND <input type="checkbox"/> AIR QUALITY <input checked="" type="checkbox"/> 45 Days
SAMPLING LOCATION 216-T-13; 14-15 ft	PROJECT DESIGNATION 200-MMW-1 Characterization Sampling and Analysis - Soil	FIELD LOGBOOK NO. COA		METHOD OF SHIPMENT Government Vehicle	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A	
SPECIAL INSTRUCTIONS PM6 2/14/05 <p>The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1)IC Amons - 300.0 (Fluoride-Nitrogen-Halogen-metals, Phosphorous in phosphate, Sulphur) Total Cyanide - 9000; pH (Soil) - 9045; (2)OPM5 - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, ds-1,2-Dichloroethylene, Methylbenzene, Toluene, 2-Dichloroethane)</p> <p>(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-G; TPH-D (Total petroleum hydrocarbons - diesel range; Total petroleum hydrocarbons - kerosene range)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Americium-241, Strontium-90 -- Total Sr;</p>					

A-6003-61 (Rev 07/03)

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days / 45 Days 4.24.65			
SAMPLING LOCATION 216-T-13; 19-20 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015						
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle					
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A				BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER		3G	3G	3G	3Gs*	3G	P		
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C776	SOIL	4-28-05	1300	X	X	X	X	X	X		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM <i>JSP/4-28-05</i>		DATE/TIME 1445	RECEIVED BY/STORED IN <i>Victor Bills 4/28/05</i>		DATE/TIME 1445						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY						TITLE	DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						DISPOSED BY	DATE/TIME			

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PO4-015-138	PAGE 2 OF 2
COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
Pope/Ritter/Tyra/Wilberg	CS Castock	372-9638	TRENT, SJ	SN	45 Days
SAMPLING LOCATION	PROJECT DESIGNATION		SAF NO. PO4-015	AIR QUALITY <input type="checkbox"/>	
216-T-13; 19-20 ft	200-HW-1 Characterization Sampling and Analysis - Soil				
ICE CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT		
		119144E510	Government Vehicle		
SHIPPED TO	OPPOSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO.		
Waste Sampling & Characterization	N/A	N/A	N/A		
SPECIAL INSTRUCTIONS					
<p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1)IC Anions - 300.0 (Fluoride-Nitrogen-Nitrato-Nitrite); Phosphorus in phosphate, Sulfate (Add-on); Ammonium-phosphate--9995; pH (Soil) - 9045;</p> <p>(2)TCP Anions - 200.8 (TAL) (Cadmium, Chromium, Copper, Nickel); ICP/HIS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3)VOC - 8260A (TCU); VOC - 8260A (Add-On)</p> <p>(4)Soil VOC -- 8270A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, o-Dibenzofuran, Trans-1,2-Dichloroethylene)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Americium-241; Strontium-89/90 - Total Sr; Americium-241; Strontium-89/90 - Total Sr; Americium-241)</p>					

PNG 3/14/05

A-6003-SL(93)(3)

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						P04-015-140	PAGE 1 OF 2	
COLLECTOR	Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT	TELEPHONE NO.		PROJECT COORDINATOR				DATA TURNAROUND	
SAMPLING LOCATION	216-T-13; 24-25 ft	CS Cearlock	372-9638		TRENT, SJ	SAF NO.	P04-015	<input type="checkbox"/>	45 Days / 45 Days	
ICE CHEST NO.		PROJECT DESIGNATION			METHOD OF SHIPMENT					
		200-MW-1 Characterization Sampling and Analysis - Soil			Government Vehicle					
SHIPPED TO		FIELD LOGBOOK NO.	COA							
Waste Sampling & Characterization		119144E510								
POSSIBLE SAMPLE HAZARDS/ REMARKS N/A		OFFSITE PROPERTY NO.	N/A		BILL OF LADING/AIR BILL NO.		N/A			
MATRIX ^a A=Air DL=Drum Liquid DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C783	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER	8G	8G	8G	8G ^b	8G	P		
		NO. OF CONTAINER(S)	1	1	1	3	1	1		
VOLUME	250mL	120mL	250mL	40mL	120mL	500mL				
SAMPLE NO.	MATRIX ^a	SAMPLE DATE	SAMPLE TIME	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 802;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
B1C777	SOIL	4-28-05	1330							
CHAIN OF POSSESSION SIGN/ PRINT NAMES										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
J-SPE 12/5/04 4-28-05	1445	Viltor T3 m S 3/24/05 1443								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN								
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME						
A-6003-618(03/03)										

Filer Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 2 OF 2	
COLLECTOR	PAPERMASTER/TYAWNDERG	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PP-015-140
SAMPLING LOCATION	216-T-33-24-25 R	CS Cemlock	372-9638	TRENT, SJ	DATA TURNAROUND
ICE CHEST NO.		PRODUCT DESTINATION	200-AW-1 Characterization Sampling and Analysis - Soil	SAF NO. FI-015	45 Days
SHIPPED TO	Waste Sampling & Characterization	FIELD LOGBOOK NO.	CDA 119144ES10	METHOD OF SHIPMENT	
		OFF-SITE PROPERTY NO.	N/A	NULL OF LADING/AIR BILL NO.	
SPECIAL INSTRUCTIONS <i>PP-015-140-03</i>					
<p>** The laboratory is to report both kerogens and diesel range compounds from the WTPH-D analysis.</p> <p>(1)C Amines - 300.0 (Infrared, nitrogen in Nitrate, nitrogen in Phosphate, Sulfide, Phosphorus in phosphate, Surfactants)</p> <p>(2)CPMS - 200.8 (TAN) (Cadmium, Chromium, Copper, Silver, Tin, Zinc (Add-On)) (Lead, Uranium)</p> <p>(3)VOA - 8260A (TCL), VOA - 650A (Add-On) (1,1-Biphenol, cis-1,2-Dichloroethylene, o-Benzoquinone, Van's 1,2-Dichloroethylene)</p> <p>(4)Sant-VOA - 8270A (Add-On) (Molybdenum phosphate)</p> <p>(5)Gamma Spectroscopy Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerogen range, Total Strontium-87; Strontium-89; Uranium-234; Isotopic Plutonium; Isotopic Uranium; Isotopic Thorium; Americium-241)</p>					

A-003-41803(0)

Appendix 5
Data Validation Supporting Documentation

000045

GC/MS ORGANIC DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 200-MU-1					DATA PACKAGE: 50940
VALIDATOR: TLC	LAB: WSCF			DATE: 6/18/05	
		SDG: 50940			
ANALYSES PERFORMED					
SW-846 8260		SW-846 8260 (TCLP)	SW-846 8270		SW-846 8270 (TCLP)
SAMPLES/MATRIX					
B1C769		B1C771	B1C774	B1C775	
B1C776		B1C777			
					Soil

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/AComments:

2. INSTRUMENT TUNING AND CALIBRATION (Levels D and E)

GC/MS tuning/performance check acceptable? Yes No N/AInitial calibrations acceptable? Yes No N/AContinuing calibrations acceptable? Yes No N/AStandards traceable? Yes No N/AStandards expired? Yes No N/ACalculation check acceptable? Yes No N/AComments:

GC/MS ORGANIC DATA VALIDATION CHECKLIST**3. BLANKS (Levels B, C, D, and E)**

Calibration blanks analyzed? (Levels D, E) Yes No N/A
 Calibration blank results acceptable? (Levels D, E) Yes No N/A
 Laboratory blanks analyzed? Yes No N/A
 Laboratory blank results acceptable? Yes No N/A
 Field/trip blanks analyzed? (Levels C, D, E) Yes No N/A
 Field/trip blank results acceptable? (Levels C, D, E) Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Comments: _____

Yes No N/A
 No PB

4. ACCURACY (Levels C, D, and E)

Surrogates/system monitoring compounds analyzed? Yes No N/A
 Surrogate/system monitoring compound recoveries acceptable? Yes No N/A
 Surrogates traceable? (Levels D, E) Yes No N/A
 Surrogates expired? (Levels D, E) Yes No N/A
 MS/MSD samples analyzed? Yes No N/A
 MS/MSD results acceptable? Yes No N/A
 MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 MS/MSD standards? (Levels D, E) Yes No N/A
 LCS/BSS samples analyzed? Yes No N/A
 LCS/BSS results acceptable? Yes No N/A
 Standards traceable? (Levels D, E) Yes No N/A
 Standards expired? (Levels D, E) Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Performance audit sample(s) analyzed? Yes No N/A
 Performance audit sample results acceptable? Yes No N/A
 Comments: _____

Yes No N/A
 No PAS

GC/MS ORGANIC DATA VALIDATION CHECKLIST**5. PRECISION (Levels C, D, and E)**

MS/MSD samples analyzed? Yes No N/A
 MS/MSD RPD values acceptable? Yes No N/A
 MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 MS/MSD standards expired? (Levels D, E) Yes No N/A
 Field duplicate RPD values acceptable? Yes No N/A
 Field split RPD values acceptable? Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments:

6. SYSTEM PERFORMANCE (Levels D and E)

Internal standards analyzed? Yes No N/A
 Internal standard areas acceptable? Yes No N/A
 Internal standard retention times acceptable? Yes No N/A
 Standards traceable? Yes No N/A
 Standards expired? Yes No N/A
 Transcription/calculation errors? Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
 Sample holding times acceptable? Yes No N/A
 Comments:

GC/MS ORGANIC DATA VALIDATION CHECKLIST**8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)**

Compound identification acceptable? (Levels D, E) Yes No N/A
 Compound quantitation acceptable? (Levels D, E) Yes No N/A
 Results reported for all requested analyses? Yes No N/A
 Results supported in the raw data? (Levels D, E) Yes No N/A
 Samples properly prepared? (Levels D, E) Yes No N/A
 Laboratory properly identified and coded all TIC? (Levels D, E) Yes No N/A
 Detection limits meet RDL? Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Comments: _____

9. SAMPLE CLEANUP (Levels D and E)

GPC cleanup performed? Yes No N/A
 GPC check performed? Yes No N/A
 GPC check recoveries acceptable? Yes No N/A
 GPC calibration performed? Yes No N/A
 GPC calibration check performed? Yes No N/A
 GPC calibration check retention times acceptable? Yes No N/A
 Check/calibration materials traceable? Yes No N/A
 Check/calibration materials Expired? Yes No N/A
 Analytical batch QC given similar cleanup? Yes No N/A
 Transcription/Calculation Errors? Yes No N/A
 Comments: _____

Appendix 6
Additional Documentation Requested by Client

000050

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F04-015

Sample Date: 04/27/05

Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001268

BATCH QC ASSOCIATED WITH SAMPLE

MS	1,1-Dichloroethene	75-35-4	23.340	93.400	% Recov	05/10/05	63.000	117.000	
MS	Benzene	71-43-2	25.340	101.000	% Recov	05/10/05	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	48.770	97.500	% Recov	05/10/05	84.000	118.000	
MS	Chlorobenzene	108-90-7	24.830	98.500	% Recov	05/10/05	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	52.300	105.000	% Recov	05/10/05	82.000	138.000	
MS	Toluene-d8	2037-26-5	53.450	107.000	% Recov	05/10/05	89.000	119.000	
MS	Toluene	108-88-3	26.190	105.000	% Recov	05/10/05	76.000	120.000	
MS	Trichloroethene	79-01-6	24.920	99.700	% Recov	05/10/05	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	21.940	87.800	% Recov	05/10/05	63.000	117.000	
MSD	Benzene	71-43-2	23.480	93.900	% Recov	05/10/05	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	48.240	96.500	% Recov	05/10/05	84.000	118.000	
MSD	Chlorobenzene	108-90-7	24.140	98.600	% Recov	05/10/05	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	51.910	104.000	% Recov	05/10/05	82.000	138.000	
MSD	Toluene-d8	2037-26-5	52.830	106.000	% Recov	05/10/05	89.000	118.000	
MSD	Toluene	108-88-3	24.480	97.900	% Recov	05/10/05	76.000	120.000	
MSD	Trichloroethene	79-01-6	23.040	92.200	% Recov	05/10/05	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	87.800	6.181	RPD	05/10/05	0.000	25.000	
SPK-RPD	Benzene	71-43-2	93.900	7.288	RPD	05/10/05	0.000	26.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	96.500	1.031	RPD	05/10/05	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	98.600	1.948	RPD	05/10/05	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	104.000	0.957	RPD	05/10/05	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	106.000	0.839	RPD	05/10/05	0.000	25.000	
SPK-RPD	Toluene	108-88-3	97.900	6.999	RPD	05/10/05	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-6	92.200	7.817	RPD	05/10/05	0.000	25.000	

000051

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F04-015

Sample Date: 04/28/05

Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	48.730	97.500	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	53.330	107.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-26-5	53.320	107.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001287									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	49.190	98.400	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	52.100	104.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-26-5	53.320	107.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001288									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	50.020	100.000	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	52.960	108.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-26-5	53.860	108.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001289									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	50.500	101.000	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	54.090	108.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-26-5	53.450	107.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001290									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	50.140	100.000	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17060-07-0	53.120	106.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-26-5	53.160	108.000	% Recov	05/10/05	80.000	126.000	

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: VOA Ground Water Protection

SAF Number: F04-015

Sample Date: 04/28/05

Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	460-00-4	49.860	99.300	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	52.310	105.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-28-5	54.410	109.000	% Recov	05/10/05	80.000	126.000	
BATCH QC									
BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloroethane	107-08-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	05/10/05			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	4-Bromofluorobenzene	460-00-4	100.20	100.000	% Recov	05/10/05	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Dibromochloromethane	124-48-1	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	05/10/05			U

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

SAF Number: F04-015

Matrix: SOLID

Sample Date:

Test: VOA Ground Water Protection

Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	05/10/06			U
BLANK	1,2-Dichloroethane-d4	17060-07-0	102.00	102.000	% Recov	05/10/05	80.000	134.000	U
BLANK	trans-1,2-Dichloroethylene	156-80-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	05/10/06			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Chlormethane	74-87-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	2-Butanone	78-93-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Methylenechloride	76-09-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	05/10/06			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Toluene-d8	2037-26-5	108.20	108.000	% Recov	05/10/05	80.000	126.000	U
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	trans-1,3-Dichloropropene	10081-02-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Trichloroethene	79-01-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Vinyl chloride	76-01-4	< 2.0	n/a	ug/Kg	05/10/05			U
LCS	1,1-Dichloroethene	75-35-4	23.520	94.100	% Recov	05/11/05	70.000	130.000	
LCS	Benzene	71-43-2	27.060	108.000	% Recov	05/11/05	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	51.260	103.000	% Recov	05/11/05	71.000	125.000	
LCS	Chlorobenzene	108-90-7	28.280	105.000	% Recov	05/11/05	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17060-07-0	63.270	107.000	% Recov	05/11/05	80.000	134.000	
LCS	Toluene-d8	2037-26-5	54.640	109.000	% Recov	05/11/05	80.000	126.000	
LCS	Toluene	108-88-3	25.840	104.000	% Recov	05/11/05	70.000	130.000	
LCS	Trichloroethene	79-01-6	27.160	109.000	% Recov	05/11/05	70.000	130.000	

000054

Date: 20 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Wet Chemistry - Data Package No. WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C771	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C774	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C775	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C776	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C777	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*

* - Phosphate not validated or reported per FHI.

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

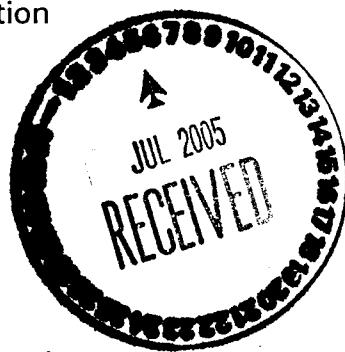
- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY PARAMETERS

• Holding Times/Sample Preservation

Analytical holding times are assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: Soil samples must be analyzed within 28 days for sulfate and immediate

000001



(24 hours) for pH.

If holding times are exceeded, but not by greater than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detectable sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

Due to the holding time being exceeded by greater than twice the limit, all pH results were qualified as estimates and flagged "J".

All other holding times were acceptable.

- **Method Blanks**

Method Blanks

Method blank analyses are performed to determine the extent of laboratory contamination introduced through sampling, sample preparation and analysis. At least one acceptable method blank analysis must be conducted for every 20 samples. No contaminants should be present in the method blank. All blank results must fall below the contract required detection limit (CRQL) to be acceptable.

All method blank results were acceptable.

Field (Equipment) Blank

No equipment blanks were submitted for analysis.

- **Accuracy**

Matrix Spike

Matrix spike (MS) analyses are used to assess the analytical accuracy of the reported data. The matrix spike is used to assess the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike and LCS recoveries must fall within the range of 75% to 125%. Samples with a recovery of less than 30% and a sample result below the IDL are rejected and flagged "UR". Samples with a recovery of 30% to 74% and a sample result less than the IDL are qualified "UJ". Samples with a recovery of greater than 125% or less than 75% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a recovery greater than 125% and a sample result less than the IDL, no qualification is required.

All matrix spike recovery results were acceptable.

Laboratory Control Sample

The LCS is used to monitor the overall performance of all steps in the analysis. Recoveries must fall within the range of 80% to 120% for LCS analysis. Samples with a recovery of less than 50% are rejected and flagged "UR". Samples with a recovery of 50% to 79% and a sample recovery below the IDL are qualified "UJ". Samples with a recovery of greater than 120% or less than 80% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a recovery greater than 120% and a sample result less than the IDL, no qualification is required.

All LCS results were acceptable.

- **Precision**

Laboratory Duplicate Samples

Analytical precision is expressed by the relative percent differences (RPD) between the recoveries of matrix spike duplicate (MSD) analyses performed on a sample in the analytical batch. Precision may alternatively be assessed using unspiked duplicate analyses performed on a sample in the analytical batch. If both sample and replicate activities (concentrations) are greater than five times the CRDL and the RPD is less than 35%, no qualification is required. If either activity (concentration) is less than five times the CRDL, the RPD control limit is less than or equal to two times the CRDL. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects or estimated non-detects.

All other laboratory duplicate results were acceptable.

Field Duplicate

No field duplicates were submitted for analysis.

- **Analytical Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. All results met the RTQL.

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Due to the holding time being exceeded by greater than twice the limit, all pH results were qualified as estimates and flagged "J". Data flagged "J" is an estimate, but under the FHI validation SOW, the data may be usable for decision-making purposes. All other validated results are considered accurate within the standard error associated with the methods.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1
Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validators in compliance with FHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated concentration is an estimate, but the data are usable for decision-making purposes.
- BJ - Applied to inorganic analyses only. Indicates the analyte concentration was greater than the IDL but less than the CRDL and is considered an estimated value.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

Appendix 2
Summary of Data Qualification

000007

WET CHEMISTRY DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
pH	J	All	Holding time

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

GENERAL CHEMISTRY ANALYSIS, SOIL MATRIX, (MG/KG)

Page 1 of 1

Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case	SDG: WSCF20050940												
Sample Number	B1C769	B1C771	B1C774	B1C775	B1C776	B1C777							
Remarks													
Sample Date	4/28/05	4/28/05	4/28/05	4/28/05	4/28/05	4/28/05							
General Chemistry	RTQI	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q		
Sulfate	5	12.0		<4.90	U	16.7		18.5		7.32		25.0	
pH**		9.52	J	9.57	J	9.58	J	9.70	J	9.69	J	9.44	J

** - Units are pH units

000010

WSCF
ANALYTICAL RESULTS REPORT

Attention:
Project: Steve Trent
F04-015; F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
	Inorganic										
W050001286	B1C769	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	91.2	%	1.00	0.0 05/03/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.52	pH	1.00	0.010 05/03/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00 2.7 05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	12.0	mg/kg	50.00 5.0 05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	7440-49-0	Cadmium	SOIL	LA-505-412	0.159	mg/kg	0.03	0.003 05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	7440-47-0	Chromium	SOIL	LA-505-412	7.26	mg/kg	0.93	3.7 05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	10.8	mg/kg	0.93	0.18 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	TS	Uranium	SOIL	LA-505-412	0.901	mg/kg	0.93	0.003 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	PH	Total solids	SOIL	LA-519-412	90.7	%	1.00	0.0 05/02/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	PO4-P	pH Measurement	SOIL	LA-212-411	9.57	pH	1.00	0.010 05/03/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	14808-79-8	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.65	mg/kg	49.00 2.6 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	7440-49-0	Sulfate	SOIL	LA-533-410	U	< 4.90	mg/kg	49.00 4.9 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	7440-47-0	Chromium	SOIL	LA-505-412	0.246	mg/kg	0.95	0.005 05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	8.07	mg/kg	0.95	3.8 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	TS	Uranium	SOIL	LA-505-412	0.18	mg/kg	0.95	0.19 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	PH	Total solids	SOIL	LA-519-412	1.03	mg/kg	0.95	0.095 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	PO4-P	pH Measurement	SOIL	LA-212-411	84.4	%	1.00	0.0 05/03/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	14808-79-8	Phosphate (P) by IC	SOIL	LA-533-410	U	< 9.58	pH	1.00 0.010 05/03/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	7440-49-0	Sulfate	SOIL	LA-533-410	B	16.7	mg/kg	50.00 5.0 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	7440-47-0	Cadmium	SOIL	LA-505-412	0.306	mg/kg	0.91	0.091 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	7439-92-1	Chromium	SOIL	LA-505-412	6.92	mg/kg	0.91	3.6 05/10/05 04/28/05 04/28/05
W050001288	B1C774	GRP	TRENT	7440-61-1	Lead	SOIL	LA-505-412	13.4	mg/kg	0.91	0.18 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	TS	Uranium	SOIL	LA-505-412	1.01	mg/kg	0.91	0.081 05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	PH	Total solids	SOIL	LA-519-412	98.2	%	1.00	0.0 05/03/05 04/28/05 04/28/05
					pH Measurement	SOIL	LA-212-411	5	9.70	pH	1.00 0.010 05/03/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

RQ=Result Qualifier

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Received
W050001289	B1C775	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL LA-533-410 U	< 2.65	mg/kg	49.00	2.6	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	14808-79-8	Sulfate	SOIL LA-533-410 B	18.5	mg/kg	49.00	4.9	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	7440-43-0	Cadmium	SOIL LA-505-412	0.167	mg/kg	0.93	0.003	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	7440-47-3	Chromium	SOIL LA-505-412	6.45	mg/kg	0.93	3.7	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	7439-92-1	Lead	SOIL LA-505-412	16.45	mg/kg	0.93	0.19	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	TS	Total solids	SOIL LA-505-412	0.928	mg/kg	0.03	0.000	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	PH	pH Measurement	SOIL LA-212-411	97.0	%	1.00	0.0	05/03/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL LA-533-410 U	< 2.70	mg/kg	50.00	2.7	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	14808-79-8	Sulfate	SOIL LA-533-410 B	7.32	mg/kg	50.00	5.0	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	7440-43-0	Cadmium	SOIL LA-505-412	0.141	mg/kg	0.89	0.089	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	7440-47-3	Chromium	SOIL LA-505-412	4.22	mg/kg	0.89	3.6	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	7439-92-1	Lead	SOIL LA-505-412	0.62	mg/kg	0.89	0.18	05/10/05 04/28/05 04/28/05
W050001290	B1C776	GRP	TRENT	7440-61-1	Uranium	SOIL LA-505-412	0.544	mg/kg	0.89	0.089	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	TS	Total solids	SOIL LA-519-412	98.9	%	1.00	0.0	05/03/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	PH	pH Measurement	SOIL LA-212-411	9.44	pH	1.00	0.010	05/03/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL LA-533-410 U	< 2.70	mg/kg	50.00	2.7	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	14808-79-8	Sulfate	SOIL LA-533-410 B	25.0	mg/kg	50.00	5.0	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	7440-43-0	Cadmium	SOIL LA-505-412 II	< 0.0993	mg/kg	0.99	0.089	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	7440-47-3	Chromium	SOIL LA-505-412 U	< 3.97	mg/kg	0.99	4.0	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	7439-92-1	Lead	SOIL LA-505-412	3.11	mg/kg	0.99	0.20	05/10/05 04/28/05 04/28/05
W050001291	B1C777	GRP	TRENT	7440-61-1	Uranium	SOIL LA-505-412	0.459	mg/kg	0.99	0.089	05/10/05 04/28/05 04/28/05

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorganic)

RQ=Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

* - Indicates results that have NOT been validated;

+ - Indicates more than six qualifier symbols

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000013

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample Type	QC Type	QC ID	QC Status
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)

Sample Number	Sample Type	Isotope	QC Result	Comments
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery

Sample Number	Sample Type	Isotope	Percent Recovery
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery

			Tracer Recovery Percent
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery

Sample Number	Lab Sample		
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
WSCF Client Services

Abbreviations

Hg – mercury	Am – americium
IC – ion chromatography	Cm - curium
ICP – inductively coupled plasma	Pu – plutonium
ICP/AES – ICP/atomic emission spectroscopy	Np – neptunium
ICP/MS – ICP/mass spectrometry	GEA – gamma energy analysis
Total U – total uranium	H3 – Tritium
AT/TB – total alpha/total beta	Sr – Strontium 89, 90
AEA – Alpha Energy Analysis	WTPH-D – Total Hydrocarbons-Diesel
WTPH-G – Total Hydrocarbons-Gasoline	TSS – Total Suspended Solids

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							5130/05	F04-015-124	PAGE 1 OF 2
COLLECTOR Pope/Pilster/Tyra/Wiberg		COMPANY CONTACT CS Cearlock			TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015						
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A			4-21-4			
MATRIX* A=Air Dl=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil Se=Sediment T=Tissue V=Vegetation W=Water WT=Type X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A			PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
				TYPE OF CONTAINER	aG	aG	aG	aG	aG	p	
				NO. OF CONTAINER(S)	1	1	1	3	1	1	
				VOLUME	250mL	120mL	250mL	40mL	120mL	500mL	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 Z0050940			SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C769 (N050001286)	SOIL	9/28/05	0930								
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM TSA/PL/CP/ST/4 4-28-05	DATE/TIME 14:45	RECEIVED BY/STORED IN TA FRAZIER	DATE/TIME 4-28-05/14:45								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY					TITLE	DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD					DISPOSED BY	DATE/TIME				

FLUOR HANFORD INC.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 2 OF 2	
COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	SN
Pope/Pfister/Tyra/Wiberg	CS Carllock	372-9638	TRENT, SJ		
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FO-015	AIR QUALITY	<input type="checkbox"/> DATA TURNAROUND 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT		
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A	119144E010	GOVERNMENT VEHICLE		
SPECIAL INSTRUCTIONS		BILL OF LADING/AIR BILL NO. N/A			
<p style="text-align: center;"><i>P.M.F. 2/14/95</i></p> <p>** The laboratory is to report both kerosene and diesel range compounds from the WTH-D analysis.</p> <p>(1)IC Anions - 300.0 (Fluoride-Nitrogen-Hetero-Nitrogen); Nitrate, Phosphorous in phosphate, sulfates, Sulfuric acid, Sulfite, Sulfate, Sulfide, Pyromellitic - 9045; pH (San) - 9045;</p> <p>(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver, Zinc); ICP/MS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-dichloroethylene, m,p,p,p-tetrachlorobenzene, trans-1,2-Dichloroethylene)</p> <p>(4)Sem-VOA - 8270A (Add-On) (Triethyl phosphate) THH-Gasoline Range - WTH-D (Total petroleum hydrocarbons - diesel range - WTH-G; THH-Diesel Range - WTH-G; THH-D (Total petroleum hydrocarbons - diesel range); Total petroleum hydrocarbons - kerosene range)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-154, Europium-157, Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;</p>					

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COLLECTOR	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	PAGE 1	OF 2
	COMPANY CONTACT Cs Ceckock	TELEPHONE NO. 372-9638	SAF NO. FU4-015			AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 DAYS / 45 Days - 1/2
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MMW-1 Characterization Sampling and Analysis - Soil			FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle	
ICE CHEST NO.	OPPOSITE PROPERTY NO.			BILL OF LADING/AIR BILL NO.			
SHIPPED TO Westar Sampling & Characterization	N/A			N/A			
MATRIX*	POSSIBLE SAMPLE HAZARDS / REMARKS N/A			PRESERVATION	Cod 4C	Cod 4C	Cod 4C
A=Air	D=Drum	Liquids	Solids	TYPE OF CONTAINER	SG	SG	SG
Dl=Drum	Drum			NO. OF CONTAINER(S)	1	1	1
L=Liquid	O=Oil	S=Sol	Se=Sediment	VOLUME	250mL	120mL	40mL
T=Tissue	V=Vegetation	W=Water	Wt=Water				120mL
X=Other							500mL
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770				SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1C771	SOIL	7/28/95	0930				
CHAIN OF POSSESSION							
RELINQUISHED BY/REMOVED FROM J54-A/CS 11-24-95	DATE/TIME 14:45	RECEIVED BY/STORED IN TA FOGLIERI (Almond Logics)	DATE/TIME 1/27/95 14:45	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
LABORATORY SECTION	RECEIVED BY	DATE/TIME	DATE/TIME				
FINAL SAMPLE DISPOSITION A-603-SL09/03	DISPOSAL METHOD	DATE/TIME	DATE/TIME				
DISPOSED BY A-603-SL09/03							

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-125	PAGE 2 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND		
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A					
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis (1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide = 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene) (4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;							

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							F04-015-137	PAGE 1 OF 2			
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Gearlock			TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE	BN	DATA TURNAROUND		
SAMPLING LOCATION 216-T-13; 12-13 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days		
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144E510		METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A								
MATRIX* A=Air Dl=Drum Liquids Dl=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None					
		TYPE OF CONTAINER	gG	gG	gG	gG ^a	gG	P					
		NO. OF CONTAINER(S)	1	1	1	3	1	1					
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL					
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 800;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1C774	SOIL	4-29-05	6955	X	X	X	X	X	X				
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM <i>TSR/ATL 4-28-05</i>	DATE/TIME 1445	RECEIVED BY/STORED IN <i>Victor P. Fins 4/28/05</i>	DATE/TIME 1445										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME										
LABORATORY SECTION	TITLE										DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSED BY										DATE/TIME		

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			P04-015-137	PAGE 2 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND	
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015		AIR QUALITY <input type="checkbox"/>	45 Days	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A					
SPECIAL INSTRUCTIONS <p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9048; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOC - 8260A (TCL); VOC - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene) (4)Semi-VOC - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;</p>							

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							F04-015-138	PAGE 1 OF 2							
COLLECTOR Pope/Mister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock			TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND	45 Days / -45 Days						
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015										
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		METHOD OF SHIPMENT Government Vehicle			1-26-68							
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A						BILL OF LADING/AIR BILL NO. N/A									
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other		POSSIBLE SAMPLE HAZARDS/ REMARKS N/A			PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None						
					TYPE OF CONTAINER	aG	aG	aG	aG*	aG	P						
					NO. OF CONTAINER(S)	1	1	1	3	1	1						
					VOLUME	250mL	120mL	250mL	40mL	120mL	500mL						
					SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS					
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME														
B1C775	SOIL	4-28-65	(CIS)	X	X	X	X	X	X								
CHAIN OF POSSESSION																	
RELINQUISHED BY/REMOVED FROM 4-28-65 1445		DATE/TIME		RECEIVED BY/STORED IN Fluor Hanford Inc 4-28-65		DATE/TIME		SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS									
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME											
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME											
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME											
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME											
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME											
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME											
LABORATORY SECTION	RECEIVED BY																
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD																
DISPOSED BY																	
DATE/TIME																	

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Gearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 14-15 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate); Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, Trans-1,2-Dichloroethylene) (4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range); (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							F04-615-139	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock			TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND 45 DAYS / 45 DAYS	
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		METHOD OF SHIPMENT Government Vehicle				
SHIPPED TO Waste Sampling & Characterization		OPPOSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A						
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A		PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
			TYPE OF CONTAINER	gG	gG	gG	gGs*	gG	P		
			NO. OF CONTAINER(S)	1	1	1	3	1	1		
			VOLUME	250mL	120mL	250mL	40mL	120mL	500mL		
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C776	SOIL	4-28-85	1300	X	X	X	X	X	X		
CHAIN OF POSSESSION											
SIGN/ PRINT NAMES											
RELINQUISHED BY/REMOVED FROM <i>DS/PAVE</i>	DATE/TIME <i>4-28-85 1445</i>	RECEIVED BY/STORED IN <i>Victor 3465 3/11 4/28/85 1445</i>	DATE/TIME	SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY	TITLE							DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY							DATE/TIME		

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Fiori Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OPPOSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Fluoride, Nitrogen-In-Nitrate, Nitrogen-In-Jarosite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, m-Biphenyl, Trans-1,2-Dichloroethylene) (4)Sem-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						PO4-015-140	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wilberg	SAMPLING LOCATION 216-T-13; 24-25 ft ICE CHEST NO.	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND 45 Days / 45 Days				
		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. PO4-015	AIR QUALITY					
		FIELD LOGBOOK NO. COA	119144ES10	METHOD OF SHIPMENT Government Vehicle						
SHIPPED TO Waste Sampling & Characterization		OPPOSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER	gG	gG	gG	gG*	gG	P		
		NO. OF CONTAINER(S)	1	1	1	3	1	1		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C783		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO. B1C777	MATRIX* SOIL	SAMPLE DATE 4-28-05	SAMPLE TIME 1330	X	X	X	X	X		
CHAIN OF POSSESSION										
RELINQUISHED BY/REMOVED FROM PIPE 4-28-05 1445		SIGN/PRINT NAMES			SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN			DATE/TIME					
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN			DATE/TIME					
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN			DATE/TIME					
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN			DATE/TIME					
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN			DATE/TIME					
LABORATORY SECTION	RECEIVED BY			TITLE			DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD			DISPOSED BY			DATE/TIME			

A-6003-618(03/03)

Fiori Harford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PAGE 2 OF 2	
COLLECTOR	COMPANY CONTACT	PROJECT DESIGNATION	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
Pope/Pfeifer/Tyra/Wiering SAMPLE LOCATION 216-T-13; 24-25 ft ICE CHEST NO.	CS Contact 372-9638	200-NW-1 Characterization Sampling and Analysis - Soil FIELD LOGBOOK NO.	TRENT, SJ SAF NO. FD4-015	BN AIR QUALITY	45 DAYS
SHIPPED TO Waste Sampling & Characterization	N/A	OFFSITE PROPERTY NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle	
SPECIAL INSTRUCTIONS	BILL OF LADING/AIR BILL NO. N/A				
<p><i>2/27/03 at 12:00 pm</i></p> <p>** The laboratory is to report both hexane and diesel range compounds from the WTPH-D analysis.</p> <p>(1)IC Anions - 300.0 (Infrared/Nitrogen in Nitrate, Nitrogen in Phosphate, Sulfate) Potassium Iodide-Silver Nitrate - 9045; (2)IC/PS - 200.8 (TGA) Cadmium, Chromium, Copper, Zinc ICP/MS - 201.8 (Add-on) (Lead, Uranium)</p> <p>(3)NOA - 8260A (TCL); NOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, Ethylbenzene, trans-1,2-Dichloroethylene)</p> <p>(4)Nernst-VOC - 8270A (Add-On) (Tributyl phosphate) TH-Gasoline Range - WTPH-C; TH-Diesel Range - WTPH-C; TH-Gasoline Range - Cobalt-137, Cobalt-60, Europium-152, Europium-154, Americium-241; Strontium-89,90 - Total Sr;</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Americium-241; Strontium-89,90 - Total Sr;</p>					

A-600-41910303

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Appendix 5
Data Validation Supporting Documentation

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GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT:	200-MW-1		DATA PACKAGE:	S0940	
VALIDATOR:	TLI	LAB:	WSEF	DATE:	6/18/05
			SDG:	S0940	
ANALYSES PERFORMED					
Anions/IC	TOC	TOX	TPH-418.1	Oil and Grease	Alkalinity
Ammonia	BOD/COD	Chloride	Chromium-VI	pH	NO ₃ /NO ₂
Sulfate	TDS	TKN	Phosphate		
SAMPLES/MATRIX					
B1C769 B1C771 B1C774 B1C775					
B1C770 B1C777					
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A
 Comments: _____

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? Yes No N/A
 Initial calibrations acceptable? Yes No N/A
 ICV and CCV checks performed on all instruments? Yes No N/A
 ICV and CCV checks acceptable? Yes No N/A
 Standards traceable? Yes No N/A
 Standards expired? Yes No N/A
 Calculation check acceptable? Yes No N/A
 Comments: _____

GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST**3. BLANKS (Levels B, C, D, and E)**

- ICB and CCB checks performed for all applicable analyses? (Levels D, E)..... Yes No N/A
 Yes No N/A
- ICB and CCB results acceptable? (Levels D, E) Yes No N/A
 Yes No N/A
- Laboratory blanks analyzed? Yes No N/A
 Yes No N/A
- Laboratory blank results acceptable? Yes No N/A
 Yes No N/A
- Field blanks analyzed? (Levels C, D, E) Yes No N/A
 Yes No N/A
- Field blank results acceptable? (Levels C, D, E) Yes No N/A
 Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A
 Yes No N/A
- Comments: NO PR

4. ACCURACY (Levels C, D, and E)

- Spike samples analyzed? Yes No N/A
 Yes No N/A
- Spike recoveries acceptable? Yes No N/A
 Yes No N/A
- Spike standards NIST traceable? (Levels D, E) Yes No N/A
 Yes No N/A
- Spike standards expired? (Levels D, E) Yes No N/A
 Yes No N/A
- LCS/BSS samples analyzed? Yes No N/A
 Yes No N/A
- LCS/BSS results acceptable? Yes No N/A
 Yes No N/A
- Standards traceable? (Levels D, E) Yes No N/A
 Yes No N/A
- Standards expired? (Levels D, E) Yes No N/A
 Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A
 Yes No N/A
- Performance audit sample(s) analyzed? Yes No N/A
 Yes No N/A
- Performance audit sample results acceptable? Yes No N/A
 Yes No N/A
- Comments: NO TAS

GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST**5. PRECISION (Levels C, D, and E)**

- Duplicate RPD values acceptable? Yes No N/A
- Duplicate results acceptable? Yes No N/A
- MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
- MS/MSD standards expired? (Levels D, E) Yes No N/A
- Field duplicate RPD values acceptable? Yes No N/A
- Field split RPD values acceptable? Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: Sulfat - RPD 25.679 J all ok

6. HOLDING TIMES (all levels)

- Samples properly preserved? Yes No N/A
- Sample holding times acceptable? Yes No N/A

Comments: pH > 2.0 J all

GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST

7. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

- Results reported for all requested analyses? Yes No N/A
- Results supported in the raw data? (Levels D, E)..... Yes No N/A
- Samples properly prepared? (Levels D, E)..... Yes No N/A
- Detection limits meet RDL? Yes No N/A
- Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: _____

Appendix 6
Additional Documentation Requested by Client

000038

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: Anions by Ion Chromatography

SAF Number: F04-015

Sample Date: 04/28/05

Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001286

BATCH QC ASSOCIATED WITH SAMPLE

DUP	Phosphate (P) by IC	PO4-P	<2.65e0	n/a	RPD	05/10/05	0.000	20.000	U
DUP	Sulfate	14808-79-8	9.27e+00	25.670	RPD	05/10/05	0.000	20.000	
MS	Phosphate (P) by IC	PO4-P	8.21e-01	84.727	% Recov	05/10/05	75.000	125.000	
MS	Sulfate	14808-79-8	1.87e+00	.93.500	% Recov	05/10/05	75.000	125.000	
MSD	Phosphate (P) by IC	PO4-P	9.13e-01	94.221	% Recov	05/10/05	75.000	125.000	
MSD	Sulfate	14808-79-8	1.86e+00	83.000	% Recov	05/10/05	75.000	125.000	

BATCH QC

BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	05/10/05	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	05/10/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	05/10/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	05/10/05	0.000	300.000	U
LCS	Phosphate (P) by IC	PO4-P	1.90e+02	98.039	% Recov	05/10/05	80.000	120.000	
LCS	Sulfate	14808-79-8	3.93e+02	98.498	% Recov	05/10/05	80.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940

Matrix: SOLID

Test: pH Soil and Waste Measurement

SAF Number: F04-015

Sample Date: 04/27/05

Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001268

BATCH QC ASSOCIATED WITH SAMPLE

DUP	pH Soil and Waste Measurement	PH	9.605	0.398	RPD	05/03/05	0.000	3.000
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000040